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Note

Is RealT Reality? Investigating the Use of Blockchain Technology and Tokenization in Real Estate Transactions

Caroline Moriarty*

I. INTRODUCTION

Cryptocurrencies, the blockchain, and digital assets have taken over the discussions of investment. Crypto’s hype, combined with frequent failures, has led some to conclude that the whole scheme is a scam. This broad denouncement ignores that the blockchain has uses beyond speculative investing, especially with digital assets. One example of a promising use of blockchain technology is real estate tokenization. Tokenization occurs when a company converts the value of a property into a token, then sells the tokens over the blockchain to investors for ownership and transfer. The benefits of tokenization include

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4. Michael C. DeCosimo & Colton Riley, The Tokenization of Real Estate: An Introduction to Fractional Real Estate Investment, DENTONS (Sept. 26,
decreasing the cost of investing in real estate, providing more liquidity, and lowering transaction costs. RealT is an investment company that promises to “democratize real estate investment” using tokens.

This Note evaluates RealT’s ability to lower real estate transaction costs and provide real estate investors the opportunity to use blockchain technology. Part II describes a traditional real estate transaction and defines essential terms for discussing blockchain, cryptocurrency, and tokenization. Part III explains what RealT is, how it works, and what the company’s goals are. Part IV analyzes RealT’s goals and shortcomings using existing legal concepts and discusses the company’s role in the single-family rental market and the decentralized finance movement. This Note concludes that while RealT cannot change the high prices of real estate nor allow investors to own a portion of a property, RealT can provide opportunities for investing on the blockchain and potentially change the single-family rental market. Ultimately, while tokenization in real estate transactions still faces many legal challenges, the concept is likely going to continue to grow and become a more popular investment.

II. BACKGROUND

RealT is innovative because it applies new technology to traditional legal processes. An overview of the essential real estate law and blockchain technology concepts is useful for understanding how RealT works in relation to the law and where there are barriers to its successful implementation.

A. REAL ESTATE TRANSACTIONS

A real estate transaction is a multi-step process that culminates in a transfer of property from one owner to another. After the potential buyer decides on a property to purchase, the buyer and seller enter into a contract of sale, which lays out responsibilities for each party before “closing” the actual
transfer of property (also called settlement). The contract of sale generally includes due diligence provisions, which involve gathering and analyzing information about the property’s condition, both physically and legally. The seller may be obligated to “cure” any title defects and physically maintain the property until closing. Other common due diligence acts include a home inspection, land survey, environmental assessment, pending litigation search, title search (including the applicability of zoning laws and local ordinances), title insurance quote, and review of any homeowner’s association policies. After a set period of time has passed, “closing” the contract of sale includes executing the deed, verifying completion of surveys and inspections, reviewing the title report, and disbursing funds. Next, the buyer (or her agent) will record the mortgage and the deed. Finally, the title insurance company will issue policies for both the buyer and the lender that protect against certain title defects.

When the buyer obtains a loan from a bank to purchase the property (as opposed to financing from the seller), the lender holds a mortgage on the property with which to enforce repayment of the loan and will likely participate on the secondary mortgage market. On the secondary market, a lender sells the mortgage to an investor, either through an outright sale, a partial assignment, or as a mortgage-backed security. While the mechanics of these transactions are not relevant for this Note, the secondary market is an important part of real estate transactions law and economics.

8. Id. (providing a template of a Contract of Sale).
9. Id. at 27.
12. Id. at 209.
13. See id. at 247 (explaining title insurance).
15. Id.
16. This is a vast simplification of the process, but most of the secondary market’s intricacies are not relevant here. See generally Burkhardt, supra note 7, at 464 (explaining methods for the mortgagor to transfer its interest).
B. CRYPTOCURRENCIES, BLOCKCHAIN, AND TOKENIZATION

RealT is a company that uses blockchain technology, which are shared databases that store and verify information.17 One of the fundamental characteristics of a “blockchain” is that the information stored on it cannot be altered, deleted, or destroyed, which makes it an ideal medium for a transaction ledger.18 Another fundamental characteristic of a blockchain is that it is decentralized, creating redundancy and protection from a single failure point.19 This is important to many users of the technology who are part of the decentralized finance (DeFi) movement, whose proponents advocate for an alternate financial system that operates between individuals rather than through banks and brokerages (which are known as centralized finance).20 RealT uses the Ethereum blockchain.21 Ethereum is a technology that allows users to program apps, organizations, asset holding, and transactions onto its blockchain, using a cryptocurrency called Ether.22 To program these apps, a user creates “smart contracts,” which are digital agreements that automatically execute when the contract terms are met.23 Finally, once a user has created her app on the Ethereum blockchain, the user can create her own system of digital assets, like a cryptocurrency.24

19. Id.
21. REALT WHITE PAPER, supra note 5, at 7.
RealT is an example of an application on the Ethereum blockchain. RealT creates digital assets called RealTokens, which represent ownership interests in a property that RealT owns. When RealT sells a token to Investor A, there is a record of the transaction stored on the blockchain. The blockchain is a public ledger, which means anyone with an Internet connection can view the record of the transaction. When RealT’s tenant pays rent (which is paid out to investors), a smart contract pays Investor A the correct amount of rent.

Digital assets have many distinct characteristics, only some of which RealT uses. One of those characteristics is fungibility. Digital assets are either fungible or non-fungible. A fungible asset is divisible and non-unique, like a dollar bill; a nonfungible asset is unique and non-divisible, like a flight ticket. An example of a fungible digital asset is Bitcoin. An example of a non-fungible asset would be a piece of digital artwork. RealTokens are interesting because RealT describes RealTokens as “fully fungible within their own set of tokens but have no relation to any other RealTokens outside of each series contract.” This means that within one property, each token is the same (has the same ownership interest, and value paid per day), but as compared to other properties, token sets are unique (the ownership interest in one property is not equivalent to ownership in another property).

RealT’s tokens are distinct from other non-fungible tokens. RealT sells ownership interests in real property as tokens, called “RealTokens.” The interest in real property is called an off-chain asset because it exists in real life, not on the blockchain (which is online). Non-fungible tokens, known colloquially as NFTs, are entirely digital assets that have a value and are traded. RealTokens are non-fungible tokens because the tokens

25. REALT WHITE PAPER, supra note 5, at 11.
27. REALT WHITE PAPER, supra note 5, at 19.
29. Fairfield, supra note 24.
30. REALT WHITE PAPER, supra note 5, at 18.
themselves are entirely digital, but the implications are different. For a purchase of a digital piece of art, an owner could lose it entirely if the platform is hacked or deleted. However, RealTokens symbolize a real-life ownership interest in property, so the property and its LLC owner exist regardless of the online finance around it.\textsuperscript{32}

A similar digital property concept involves using cryptocurrencies to purchase or build a house in the Metaverse.\textsuperscript{33} RealT is not connected to this at all. First, RealT does not involve purchasing property with cryptocurrency; instead, it facilitates collecting rent payments and disbursing it to investors using tokens (a cryptocurrency). Second, the Metaverse is more like a video game than real life. While one can make a house and buy things in the Metaverse, real estate tokenization is different because it affects real property, in real life.\textsuperscript{34}

C. WHAT IS REALT?

RealT is a Delaware series LLC that sells ownership interests as tokens called RealTokens on the Ethereum blockchain. The process is complex, but once completed, investors can “own” a portion of a property for only $63.75.\textsuperscript{35} Because RealT is a series LLC, it creates independent series that are treated as separate legal entities.\textsuperscript{36} Each time RealT purchases a property, the property has its own LLC; for example, the property at 9943 Marlowe Street is owned by 9943 Marlowe Street LLC, part of the RealT series.\textsuperscript{37} The deed to the property is recorded in the county recorder’s office with the series LLC as

\textsuperscript{32} See generally Fairfield, supra note 24 (explaining ownership issues with non-fungible tokens).


\textsuperscript{35} @AlfaSpoon, First Look into RealT, MEDIUM (Aug. 18, 2019), https://medium.com/@TokenBias/first-look-into-realt-51ac5510005b.

\textsuperscript{36} REALT WHITE PAPER, supra note 5, at 11.

\textsuperscript{37} Id. at 18.
the owner of the property. To explain the ownership interests, RealT also files an affidavit stating that the ownership interest is split into separate units, each with a universal identification number.\(^\text{38}\)

After a property is purchased, RealT rents the property out to tenants, who pay monthly rent. Then, RealT sells the ownership interests as “RealTokens,” which gives token holders “individual ownership and certain governing rights . . . over the discrete property owned by the Series.”\(^\text{39}\) While each token holder has an ownership interest in the property, RealT hires third-party property management service providers to maintain the properties.\(^\text{40}\) Decisions about the management of the property can be made by RealToken holders based on an operating agreement that binds every series.\(^\text{41}\)

The RealToken holders receive a percentage of rent (after subtracting property management fees). One benefit of RealTokens is that payouts are disbursed daily, not monthly. While the tenant still pays on a monthly basis, a smart contract on Ethereum disburses a fractional amount of the rental income to each token holder based on the holder’s property interest on a daily basis. The payment transactions use DAI, which is called a “stablecoin” cryptocurrency because its value is tied to the US dollar.\(^\text{42}\) To view RealT’s available properties, a prospective investor must register and verify her identity.\(^\text{43}\) As of 2019, RealT operated seven properties, at least four of which are in Detroit, Michigan.\(^\text{44}\)

It is worth noting here the difference between RealTokens and other cryptocurrencies like DAI. RealTokens are not cryptocurrency; they represent a property interest, not monetary value. After RealT buys a property, it divides the property into a finite number of RealTokens which represent fractions of property ownership. Imagine RealTokens are slices of a pie, where a whole pie is total ownership of the property. If a token

\(^{38}\) Id.

\(^{39}\) Id. at 11.

\(^{40}\) Id. at 12.

\(^{41}\) Id.


\(^{43}\) See *infra* part III.B, which explains accredited investors.

\(^{44}\) See @AlfaSpoon, *supra* note 35; The Progress of Tokenized Real Estate, REALT (May 4, 2020), https://realt.co/progress-of-real-estate-tokenization/.
holder buys more RealTokens, the holder owns a larger portion of the property because each token represents part of a property interest. Thus, having more RealTokens means the token holder will receive a larger portion of the rent collected from the property’s tenant. Tenants pay rent using dollars, but those dollars are converted to DAI when disbursed to investors. DAI is a cryptocurrency, like bitcoin, because each DAI coin represents monetary value. DAI’s value is tied to the U.S. dollar value, unlike bitcoin, which has a volatile value. Like a dollar bill, there is virtually no limit to the number of DAI coins in “circulation.” In contrast, the number of RealTokens is limited by the size of the “pie,” which is determined by RealT when the property is purchased.

To illustrate the general principles of RealToken ownership, here is an example. Alice decides to try RealT’s product. First, Alice goes to RealT’s platform and views properties. She decides to invest in 9943 Marlowe Street, an 887 square foot home with three bedrooms in Detroit, Michigan. RealT tokenized the ownership interest of 9943 Marlowe into 1000 tokens, each costing $63.75. The property management company rents out the property to a tenant that pays $850 per month. Before Alice purchases the token, she verifies her identity as an accredited investor. Once her identity is verified, she pays $63.75 using a credit card or traditional bank account. Then, Alice e-signs the operating agreement for the property and receives the RealToken in her Ethereum wallet. In the background, this transaction is added to the blockchain, and a smart contract is implemented to disburse rent to Alice. Finally, each day, the smart contract sends $0.027 DAI to Alice’s wallet from the

46. The pie itself it set by RealT, and the pieces don’t get smaller. If all the tokens are purchased for a property, then no more investors can invest in that specific property.
47. The example here is based on the @AlfaSpoon article, supra note 35.
49. The token’s cost does not reflect the value of the property because each token (representing a property interest) can be bought and sold through the RealT platform.
tenant’s rent payment, which is the equivalent of $0.85 per month.50

Interestingly, RealToken holders can sell tokens as part of the decentralized finance movement, which resembles the traditional secondary mortgage market.51 The RealToken trade occurs on a platform called Uniswap, the “secondary market” for tokenized real estate.52 Additionally, buyers can collect RealTokens and resell them as another token representing multiple property ownership interests, which, as RealT explains, gives investors “generalized real estate exposure.”53

III. DISCUSSION

RealT plans to solve a few major issues with the real estate market. First, the company makes its product unique by selling investors ownership interests in real property.54 Second, RealT addresses the price of real estate by selling tokens for as little as $63.75.55 Third, RealT plans to reduce high transaction costs by using the blockchain.56 Fourth, RealT potentially provides balance in the growing single-family rental market as homeownership rates decline in the United States.57 Finally, RealT solves real estate’s illiquidity problem by selling tokens representing real estate, which are able to be bought and sold easily.58 The next section will discuss each of these solutions by

50. $850/$1000 = $0.85 per month. Because DAI’s value is pegged to the value of the US dollar, the DAI earned per month is also 0.85. Rent is disbursed daily, so $0.85/31 = 0.027 DAI per day. For this example, the exchange rate between DAI and USD is exactly 1:1 and there is no deduction to pay the third-party property manager.


53. Id. See generally David Hoffman, DeFi Needs More Value, BANKLESS (Apr. 1, 2020), https://newsletter.banklesshq.com/p/defi-needs-more-value (explaining how RealT is planning integration methods with Balancer, a financial instrument that pools RealTokens and creates a secondary token that represents an index).

54. See infra Section III.A Property Ownership.

55. See infra Section III.B Price and the Accredited Investor Definition.

56. See infra Section III.C Transaction Costs.

57. See infra Section III.D Homeownership versus Renting.

58. See infra Section III.E Illiquidity.
evaluating their accuracy, questioning the problem itself, and suggesting alternative methods.

RealT’s ingenuity arises from how the company solves traditional real estate problems using new technology on the blockchain. However, RealT addresses these issues with mixed success. In some ways, its benefits falter when compared to existing law. There are also realistic side-effects that RealT does not suggest to potential investors but of which they should be aware before investing in RealTokens.

A. PROPERTY OWNERSHIP

One of RealT’s fundamental characteristics is its ability for investors to own a portion of a home for much less than it would cost to buy a home individually. But what ownership rights would investors have in the property? This section compares a homeowner’s property rights to the rights of a RealToken holder.

Once a real estate transaction is completed, the buyer, now homeowner, has legal rights in the property. These rights are sometimes described as the “bundle of rights.” While the exact nature of what is included in this conceptual bundle is debated, some of the rights include possession, control, exclusion, enjoyment, and disposition. These rights describe the limits on the owner and can be assigned. For example, if A owns Blackacre, the right of possession means only A can live in Blackacre; further, A can tell B to leave the property with the right to exclude.

Aside from their rights over the property itself, the owner also has a common-law estate in land. There is a presumption in real estate transactions that a fee simple absolute is transferred, but even if a party wants to transfer a different interest, the types of interests are limited. The numerus clausus principle states that there is a closed, fixed system of property interests in land, and parties cannot create new interests.

61. This is true in all but two states. See JESSE DUKEMINIER & JAMES E. KRIER, PROPERTY 208 (3d. ed. 1993).
62. These common law estates are fee simple, fee simple defeasible, fee tail, life estate, and leasehold. See generally id. at 193–262.
grantor or a testator cannot create a property interest that doesn’t match existing categories. For example, if A sells a life estate to B, B cannot sell a fee simple to C, because B only has a life estate in the property. This is true even if A sells an estate that purports to give B a life estate with the ability to sell a fee simple. A court would not recognize this interest. Rather, the court will “squeeze the interest into one of the established categories, the only question being which standardized box is most consistent with the testator’s intentions or is otherwise ‘best’ in terms of policy concerns such as promoting the free alienability of property.”

RealT makes no effort to fit within established categories of property interests. Throughout their marketing materials, RealT consistently asserts that investors own property, stating “ownership of RealTokens . . . is effectively ownership of the property,” and investors “retain all legal rights and protections that are provided by traditional ownership of real estate.” When describing the role of investors, RealT always uses the verb “own” and suggests that investors should connect with their “mutual property owners.” RealT also distinguishes itself from its competitor, a Real Estate Investment Trust (REIT), by stating that REIT investors do not “actually own any share of the REIT held properties themselves.”

Functionally, the owner of the property listed on the deed is the LLC for the individual property and RealT files an affidavit which it claims is “a redundant mechanism for linking ownership of the deed to the membership interests of the Series of the LLC.” However, according to numerus clausus, parties cannot create a new property interest through a contract. Therefore, RealT investors are members of an LLC, not “owners.”

64. Id. at 13.
65. Id. at 14; see also Kajo Church Square, Inc. v. Walker, No. 12-02-00131-CV, 2003 WL 1848555 (Tex. App. Apr. 9, 2003) (applying the numerus clausus principle to leasehold interests).
66. REALT WHITE PAPER, supra note 5, at 2–10.
68. REALT WHITE PAPER, supra note 5, at 6.
69. Id. at 11.
Some could argue this is just semantics—"effective ownership" could be enough for investors. However, the implications of not owning property means that the investor also does not have any property rights. Returning to the metaphor of sticks as property rights, it is not that a RealT investor does not have all sticks in the bundle of property rights; rather, the investor does not have a bundle at all. The rights to control, exclude, possess, enjoy, and dispose of are owned by the LLC, not the investor, which means stating that investors are owners is a fundamental misrepresentation. As law professors Moringiello and Odinet discuss, the problem of misrepresentation in digital asset projects is pervasive.\textsuperscript{70} They write, "NFT platforms are either directly promoting NFTs as being legally capable of more than what the law will allow, or they are at least sending mixed messages about what is being offered and what the buyer (or seller, for that matter) can actually expect."\textsuperscript{71}

Additionally, one of the important distinctions between an NFT (think a piece of digital artwork) and RealT is that the tokens represent a real-life property, not an entirely digital asset. If RealT disappears tomorrow, the properties it owns will still exist. However, because the investors are not owners of the property, they cannot try to recoup their investment by selling the property. These decisions would have to be made by every investor in the LLC for the property, but it is unclear how each property’s LLC is related to RealT the company, which could affect the ability for each group of investors to act collectively.\textsuperscript{72}

In the APAC region, both Thailand and South Korea have launched real estate tokens for new developments, both with relative success.\textsuperscript{73} To answer the collective ownership issue, the


\textsuperscript{71} Id. at 664.

\textsuperscript{72} RealT states that the “Operating Agreement is an internal document of RealToken LLC that defines the governance and operation of the LLC and the relationships among members of the LLC,” which could explain what would happen if RealT goes bankrupt or stops working or could not. See REALT WHITE PAPER, supra note 5, at 12. Additionally, foreclosure mechanisms with real estate transactions likely fall under Article 9 of the UCC, which has a completely different enforcement regime that is arguably worse for debtors. See generally R. Wilson Freyermuth et al., Crypto in Real Estate Finance, 75 ALA. L. REV. (forthcoming 2023).

\textsuperscript{73} Yuen Leng Chow & Kok Keong Tan, Is Tokenization of Real Estate Ready for Lift Off in APAC?, 40 J. PROP. INV. & FIN. 284, 284–85 (2022).
projects have been structured like REITs, which are special purpose investment vehicles that manage legal ownership and asset maintenance. The projects do not claim investors are owners; rather, investors' interests fit within pre-existing legal categories.

The complexities raised by RealT’s goal of “ownership” are exactly why the numerus clausus principle exists. Creating new forms of property makes property more difficult to transfer and encumber, undermining economic activity and societal growth. Courts consistently strike down unreasonable restraints on alienation by matching the facts at issue to the pre-existing closed set of property interests. Rather than leaving the issue to the courts, fractionalized ownership could be codified in statute, like the laws about ownership of timeshares and condominiums. To address this, lawmakers would have to consider the practicality of having 1,000 owners listed on a property deed, only identified by their blockchain wallet account, and the ensuing chaos that could occur as each owner attempts to exercise her rights.

In summary, RealT cannot accomplish its goal of making investors property owners as long as the numerus clauses principle exists. Investors should be aware that they would only have membership in an LLC and would not have any of the rights of a property owner. To solve this, RealT could lobby to create a new statute governing tokenized properties (like the statutes governing timeshares), structure the interests more like a REIT, or tell investors explicitly that the company doesn’t sell legal ownership interests.

74. Id. at 287.
75. Moringiello & Odinet, supra note 70, at 650.
76. See White v. Brown, 559 S.W.2d 938 (Tenn. 1977) (voiding attempted restraint on alienation as inconsistent with incidents and nature of estate devised and contrary to public policy).
78. A discussion about co-ownership is outside the scope of this Note. To learn more about co-ownership in tokenization projects, see Francina Cantatore et al., Fractionalised Land Interests: More Questions than Answers, 28 AUSTRALIAN PROP. L. J. 39, 51 (2020).
B. PRICE AND THE ACCREDITED INVESTOR DEFINITION

The second problem in the real estate market is high prices. The median sale price for a home in 2022 was $454,900, and when narrowed to the Midwest, the price was $399,800. In this seller’s market, investors struggle to pay the sale price and also struggle with low supply. In Minnesota, the number of homes for sale in 2022 was 5.1% lower than the previous year, and the number of newly listed homes was 25.1% lower.

RealT claims to solve this problem. The company’s perspective is that only wealthy market participants can invest in expensive real estate. On the other hand, any market participant can become a RealT investor because prices per token are much lower than the cost of a home. However, not everyone may be able to invest in RealT because of the “accredited investor” requirement under Regulation D of the Securities Act of 1933. The Securities Act requires all securities offerings to be registered with the Securities and Exchange Commission (SEC) unless the offering falls under an exemption, one of which is Regulation D.

Regulation D requires the sale of securities to be limited to accredited investors. "Accredited investor" is defined at 17 C.F.R. § 230.501(a) (2023). Regulation D offers an exemption for sales made to non-US persons. Regulation S is outside the scope of this Note.

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80. Robin Rothstein, Housing Market Predictions for 2023: Are Home Prices Finally Becoming Affordable?, FORBES (Apr. 6, 2023), https://www.forbes.com/advisor/mortgages/real-estate/housing-market-predictions/ (“I believe that we’re likely to see low inventory continue to vex the housing market throughout 2023.”).
82. REALT WHITE PAPER, supra note 5, at 6.
84. The range of token prices is not immediately certain because a potential investor must register through the platform to see the prices.
85. “Accredited investor” is defined at 17 C.F.R. § 230.501(a) (2023).
86. Regulation D Offerings, SEC, https://www.investor.gov/introduction-investing/investing-basics/glossary/regulation-d-offerings (last visited Jan. 11, 2023). RealT also is subject to Regulation S, which concerns sales made to non-US persons. Regulation S is outside the scope of this Note.
Accredited investor status can be achieved in a few ways.\textsuperscript{88} First, an investor can become accredited if she meets income thresholds: either a net worth of over $1 million\textsuperscript{89} or individual income over $200,000 in the last two years with a reasonable expectation of earning the same income in the current year.\textsuperscript{90} Second, in a recent revision of the accredited investor requirement, an investor can become accredited by holding certain professional certifications.\textsuperscript{91} The SEC defines those certifications using three exams administered by the Financial Industry Regulatory Authority (FINRA).\textsuperscript{92} Third, an investor can become accredited if she is a “knowledgeable employee,” which includes employees of private funds.\textsuperscript{93} Importantly, the issuer of the private exempt offering, in this case RealT, has the burden to verify that all investors are accredited, rather than the SEC verifying investors.\textsuperscript{94} The financial certification and knowledgeable employee standards were added to support the SEC’s statement that “we do not believe wealth should be the sole means of establishing financial sophistication . . . . [T]he characteristics of an investor contemplated by the definition can be demonstrated in a variety of ways.”\textsuperscript{95} RealT does require all investors to be accredited, based on its website’s “verification” mechanism (shown as a screenshot in the Appendix), which prevents potential investors from starting the process of buying tokens until they pass the accredited investor test.\textsuperscript{96}

While the SEC’s amendment does allow more investors to become accredited, one perspective is that “[t]he new system doubles down on viewing sophistication largely in terms of withstanding a loss on an investment as opposed to assessing

\textsuperscript{88} This note only discusses possibilities that apply to individual investors. For a complete list, see 17 C.F.R. § 230.506(a).

\textsuperscript{89} 17 C.F.R. § 230.506(a)(5) (2023).

\textsuperscript{90} 17 C.F.R. § 230.506(a)(6) (2023).

\textsuperscript{91} 17 C.F.R. § 230.501(a)(10) (2023).


\textsuperscript{93} Id. at 2334; see also 17 C.F.R. § 230.501(a)(11) (2023).

\textsuperscript{94} O’Connor Gill,\textit{ supra} note 92, at 2334.


\textsuperscript{96} Appendix A shows a screenshot from RealT’s website of the accredited investor verification.
one’s ability to fend for themselves in a competitive market environment.\textsuperscript{97} Thus, the accredited investor definition likely limits RealT’s growth.\textsuperscript{98} Prospective RealToken investors that do not have the expertise or capital to become accredited will not be able to participate in RealT, even if it costs less than $100 to purchase a token. The accredited investors may wonder why they would own 1/1000th of a house when they can buy the whole property.\textsuperscript{99} Further, it is likely that RealT only used the Regulation D method because of the regulatory uncertainty surrounding cryptocurrencies, not because the company actually wanted to restrict who could invest. After the boom of speculative token offerings near the end of 2017, many of which were Ponzi schemes, the SEC has taken a stricter approach to blockchain offerings, classifying almost all as securities using the \textit{Howey} test.\textsuperscript{100} In contrast, other countries including Japan, Hong Kong, and Singapore have established updated regulations specifically for tokenization, “increasing regulatory clarity on the security token market.”\textsuperscript{101}

In general, investor accreditation is a good thing. Preventing potential investors from losing money they cannot afford to lose is consistent with the SEC’s missions of protecting investors, facilitating capital formation, and maintaining fair, orderly, and efficient markets.\textsuperscript{102} However, accreditation realistically limits RealT’s use to investors that have enough to lose, but do not want to use traditional methods of real estate investing. RealT cannot fully democratize real estate investing as long as the company requires investors to be accredited.

\begin{itemize}
    \item \textsuperscript{97} O’Connor Gill, \textit{supra} note 92, at 2338.
    \item \textsuperscript{98} REALT WHITE PAPER, \textit{supra} note 5, at 4 (“The potential to digitize ownership of almost any asset will enable new mechanisms for democratizing access to real estate previously unavailable to the average person.”); Hoffman, \textit{supra} note 83 (“Inclusionary to all investor types.”).
    \item \textsuperscript{99} Practical Law Real Estate, Expert Q&A: Blockchain in Real Estate, WESTLAW, w-028-2157, Dec. 9, 2020 (“Large institutional investors that invest directly in real estate may not benefit much from the tokenization of interests.”).
    \item \textsuperscript{101} Chow & Tan, \textit{supra} note 73, at 287.
    \item \textsuperscript{102} Gensler, \textit{supra} note 100.
\end{itemize}
C. TRANSACTION COSTS

The third problem with real estate, and one that RealT cannot solve, is transaction costs. Generally, transaction costs include the incidental costs of “buying” real estate and the practical expenses of fulfilling the terms of the contract of sale between the buyer and seller. 103

This section will explain how RealT cannot adequately address (1) incidental costs, (2) title costs, nor (3) physical inspection costs. Further, RealT (4) adds the cost of adopting and using blockchain technology, and (5) eliminates the necessity friction these costs provide in a transaction.

1. Incidental Costs

The first costs of a real estate transaction are the real estate agent’s commission, legal fees, and the 30-day timeline (an opportunity cost). 104 The company criticizes intermediaries like lawyers and real estate brokers, who make billions of dollars a year navigating the “red tape.” 105 RealT asserts that “[r]educing the 30-day average exchange period of real estate, to the 12 second block time on Ethereum, represents revolutionary improvement in the sale mechanics of real estate.” 106

Unlike a purchaser of an entire home, RealT investors are buying tokens for a home that has already been purchased. Theoretically, an investor does not pay those costs, especially the opportunity cost of time because she would only invest once the home has been purchased and tokenized. These costs are only relevant if the investor’s options are between purchasing a home as an investment property on her own versus investing in RealT. 107 If the incidental costs are part of an investor’s decision calculus, RealT does not eliminate them.

2. Title Costs

The second transaction cost arises from title searching and title insurance. One of the most important terms is the state of

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103. See supra Part II (explaining the steps of the real estate transaction).
104. REALT WHITE PAPER, supra note 5, at 5.
105. Id.
106. Id. at 8.
107. This is a likely scenario because any investor would have to have sufficient income or sophistication to qualify as an accredited investor under Regulation D. See supra Part III.B.
the title: the buyer must identify any title defects, and the seller must cure them before closing. Title recording, searching, and insurance policies are costly. RealT does not take advantage of the existing blockchain solutions.

Title searching is facilitated by title insurance companies, who search the title records at a state and local level and examine documents relating to the property. Title insurance is the primary way that buyers protect themselves from title defects. As a result, title insurance companies generate massive premiums; in 2021, companies collected $26.2 billion dollars.

Recording property titles on the blockchain would make title searches, and accordingly title insurance, much less complex. RealT posits a future where all relevant documents about a property would be on the blockchain for everyone to view using Ethereum’s document management system called IPFS. Two issues arise. First, RealT has not implemented this, so the initial cost to investors could increase as RealT puts all the documents on Ethereum for the first time. Second, and more importantly, having the documents available on the blockchain does not ensure their validity nor eliminate the need for title assurance methods. Theoretically, a buyer of a home would not need any title insurance if she knew everything about the title. Title insurance still exists though because there is always a risk that there is an unrecorded interest or a forged document that property owners want to insure against.


110. Brooklee Han, Title Insurance Industry Premiums Spike 7B Year over Year, HOUSINGWIRE (May 9, 2022), https://www.housingwire.com/articles/title-insurance-industry-premiums-spike-7b-year-over-year/; see also Maksymilian Ewendt, Leveraging Blockchain Technology in Property Records: Establishing Trust in a Risk-Filled Market, 19 N.C.J.L. & TECH. ON. 99, 106–07 (2018) (“The title insurance market has since grown exponentially . . . . In the first quarter of 2017, insurance premiums were already at $3.3 billion. When compared year-over-year, 2017 is ahead of 2016’s pace that totaled $14.3 billion dollars in premiums for the year.”).

111. REALT WHITE PAPER, supra note 5, at 23.

112. Hoffman, supra note 83.
Other countries address the costs of title by using the Torrens registration. The Torrens system, instead of having a whole database of property documents that must be examined to determine the state of title, has one certificate of title that guarantees ownership. All easements, mortgages, and liens are listed on the certificate. If an interest not on the certificate is asserted, the government will defend the state of the title or pay out the claimant. The Torrens system shares many of the same benefits as storing property records on the blockchain—high transparency, low transaction costs (after the first initial search to make the certificate), and high security. However, registering a Torrens property can be expensive upfront because it requires intensive document gathering and associated investigation to ensure every relevant piece of information is on the certificate.

Australia uses the Torrens system, but the government is also proposing real estate tokenization using the blockchain in Adelaide, a city in South Australia. With this project, the government will split the property into fractional pieces called “bricklets,” which are then sold on the blockchain. The project is still in the planning stages, but it is curious that Australia would use the blockchain because the Torrens system already eliminates some of the title costs prevalent in the U.S. market. However, the lowering levels of property ownership and low housing stock available incentivized the government to provide a method for creating multiple small interests in real property. Moreover, one benefit that the blockchain provides over the Torrens system is the ability to enable smart contracts. Once a “coin” signifying ownership is issued, smart contracts can automatically deduct funds for rent from the tenant, deposit rent payments with the owner, and even distribute the cost of a repair.

114. Id.
115. Id.
116. Cantatore, supra note 78, at 40.
117. BURKHART, supra note 7, at 245.
118. Cantatore, supra note 78, at 39.
119. Id.
proportionally among owners’ wallets and deduct the corresponding amounts.\textsuperscript{120}

RealT only solves the costs associated with land titles once property documents are stored on the blockchain, and even once the documents are, it is likely that title insurance will still remain to insure against risk. A better alternative to lower costs could be to register each title of a RealT property with the Torrens system, which could decrease the need for extensive title searching, but add another cost of registering properties on the Torrens system.\textsuperscript{121}

3. Physical Inspections

The third cost comes from a physical inspection, required by most, if not all, contracts of sale (outside of the foreclosure context). RealT cannot lower this cost because the need for inspection will not be eliminated by the blockchain. Even if all available information about the property exists and is recorded, the state of the physical property will change and require continuing inspections.\textsuperscript{122}

4. Digital Adoption

RealT will add an additional cost of learning to use and trust the blockchain. First-time investors have to jump through many hoops to start investing, from registering on Ethereum, getting a user account, getting a digital wallet, buying cryptocurrencies in order to purchase tokens, and then cashing out the income made from the rental property.\textsuperscript{123} Even after the initial set-up, certain digital platforms charge significant transaction fees or set minimums for single cryptocurrency transactions.\textsuperscript{124} Most importantly, like any new technology, crypto companies like RealT have to build trust with investors, especially older

\textsuperscript{120} Id. at 48.

\textsuperscript{121} This is not the easiest solution because most RealT properties are currently in Michigan, which does not have the Torrens system. Even if Michigan adopted the Torrens system, it would likely need to incentivize owners to register their properties on the new system, which requires owners to pay high costs.

\textsuperscript{122} Moringiello & Odinet, supra note 17, at 41.

\textsuperscript{123} See generally id. at 629 (explaining the process that the authors undertook to begin using a different NFT platform).

\textsuperscript{124} Id.
generations who invest in real estate. Currently, of the 86% of people surveyed who had heard of the blockchain, only 16% have invested. Additionally, while the blockchain is touted as a secure method of storing information about transactions, it can also be hacked. There is no real solution to this problem, but it is minimized in other countries. For example, digital adoption is faster in the Asia-Pacific region. In these countries, using digital technologies in everyday life (like for grocery shopping or online banking) is ubiquitous, which could make the transition to blockchain investment quicker.

5. Necessity of Transaction Costs

Finally, transaction costs, from intermediaries to inspections, are part of a real estate transaction that should not be eliminated. A real estate buyer wants many answers before purchasing a home: Does the heater work? What are the HOA rules? How much is my mortgage payment? How deep are the cabinets? Do my neighbors have easements? What does this promissory note obligate me to do? Intermediaries cause necessary friction in real estate transactions that promotes well-informed decision making and due diligence. Without these processes, real estate would be transferred with all sorts of problems, from title defects to physical defects, and ultimately make both buyers and sellers unsatisfied with the transaction.

In summary, real estate transaction costs will still exist with RealT, even if the investors do not directly pay them. Prospective homeowners will likely still want physical home inspections, title insurance, and other intermediaries to facilitate one of the biggest purchases of one’s life. Any use of the blockchain with property records still has many barriers to implementation, and investors will face increased costs from learning to use and trust digital platforms like RealT.

126. Moringiello & Odinet, supra note 70, at 655.
128. Chow & Tan, supra note 73, at 288.
129. Moringiello & Odinet, supra note 17, at 41.
130. Id. They can also ensure the off-chain existence of the property. See Sugino et al., supra note 125.
D. HOMEOWNERSHIP VERSUS RENTING

The fourth issue in the real estate market that RealT claims to address is decreasing homeownership. In 2019, only 37.8% of adults under 35 owned a home, while rental households increased by over 458,000 in the same period. RealT is taking advantage of these dynamics in two ways. First, if a tenant is also an accredited investor, she can purchase her own property's tokens, providing a route to homeownership. Second, RealT's long-term incentives as a landlord distinguish it from other short-term oriented firms, which could provide balance in a changing single-family rental market.

One initial concern about RealT was that its business, and others like it, convert more homes into rental properties, reducing the number of homes available for purchase. RealT only briefly mentions their rent-to-own solution, likely because most people who plan to invest in RealT already have a stable living situation, due to the accredited investor requirement. It is more likely that investors and tenants will be different parties. While investors “own” a portion of the home, the home itself is rented out to tenants. This is contrary to the goal of homeownership, which is part of the American dream for many people. 85% of respondents surveyed stated that they would like to own a home someday, regardless of whether they could afford it. Homeownership is perceived to have many benefits,

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132. If a renter purchase tokens in the property she is renting, she would be paying rent and receiving a portion back as return on her investment. If she purchases all the tokens, she would receive all the return (minus any cut RealT would take for property management).

133. REALT WHITE PAPER, supra note 5, at 20. Note that the header for the section referenced is “Ideation Surrounding Potential Utilities” (emphasis added).

134. “Own” here means to be a member of an LLC. See supra Section III.A.

135. William H. Rohe & Mark Lindblad, *Reexamining the Social Benefits of Homeownership After the Housing Crisis* 12 (2013) (noting that 89% of renters surveyed responded that owning a home was a very or somewhat important part of the American Dream).

136. *Id.*
including providing family stability, building community, and creating wealth through home equity.\textsuperscript{137}

These perceptions may not be accurate. On the contrary, homeowners are not universally good for communities or prospective owners. Homeownership is not attainable for people living in high-cost-of-living areas and moving to a place that is more affordable could come at the cost of opportunities in those areas (like jobs).\textsuperscript{138} Some potential owners on the cusp of financial stability might be “victimized by subprime lenders who see the potential profits when someone forecloses,” illustrated by the over 2 million “underwater” mortgages in the United States remaining after the Great Recession.\textsuperscript{139} Generational wealth is actually decreasing with each generation, partially due to rising house prices.\textsuperscript{140} When discussing the benefit of growing communities, homeowners create more exclusionary communities by using their status as taxpayers to privilege their ideas over renters’ ideas, or discourage any idea that would hurt property values (often affordable housing projects).\textsuperscript{141}

The most concerning consequence of more homeowners is their potential to actually cause more housing affordability problems. As Brian McCabe, sociology professor and author at Georgetown University, states:

As they advocate for projects and developments that they expect to improve their property values, homeowners contribute to the worsening of the crisis of housing affordability in American cities. They encourage investments that raise property values, even though soaring property values make neighborhoods less affordable for many low-income households. They may balk at the prospect of public or supportive housing initiatives in their communities, even though affordable housing initiatives frequently benefit long-term neighborhood residents. With an eye toward protecting and defending the value of their homes, homeowners simultaneously narrow the possibilities for creating a more inclusive, democratic community.\textsuperscript{142}

\begin{thebibliography}{9}
\bibitem{139} BRIAN J. MCCABE, NO PLACE LIKE HOME: WEALTH, COMMUNITY AND THE POLITICS OF HOMEOWNERSHIP 108 (2016).
\bibitem{140} Phillips, \textit{supra} note 138.
\bibitem{141} MCCABE, \textit{supra} note 139, at 112.
\bibitem{142} \textit{Id.} at 108.
\end{thebibliography}
With these considerations in mind, it might be positive for communities to have some homeowners and some renters, especially within the same neighborhood. Inclusive communities with opportunities for everyone to be housed are worthy goals that RealT, by creating more rental properties, could help achieve.

The other concern about creating more rental properties is creating more landlords. Landlords can be helpful managers who create positive living experiences for tenants, or can be absent and unapproachable, leaving tenants with difficulties with maintenance requests, security deposits, or other issues with the properties. The traditional landlord is being replaced by private equity firms.143 Private equity firms, active in both the single family and multifamily rental markets, are buying properties all over the country, then re-selling them quickly for profit.144 As a landlord, private equity firms can cause higher market prices, raise fees, evict tenants at higher rates, and respond slowly to tenants’ needs.145 In Phoenix, 25 corporations collectively own more than 7,500 properties, which accounts for nearly 1 in 5 rental properties in the city.146 In Phoenix, many sellers recount how private equity firms, using subsidiary real estate companies, consistently purchase homes well over asking price, leading the average price of homes in the city to increase by 27% in one year.147 Once the firms purchase the homes, they use aggressive tactics like sharply increasing rent, creating high fees, or neglecting upkeep of the property.148 If the tenants can no longer afford to pay rent, private equity firms waste no time in filing evictions. In Atlanta, “some of the largest firms file eviction notice on a third of their properties in a year and have

146. Id.
147. McIntyre, supra note 145.
148. Vogell, supra note 143.
an 18 percent higher housing instability rate even after controlling for property and neighborhood characteristics.  

One of RealT’s biggest drawbacks—it markets to investors who must be accredited, but not wealthy enough to purchase a whole property on their own—could be one of its biggest strengths. Because RealT creates a whole LLC and token group for each property, the company invests in the physical property. The company’s goal is to provide consistent rents to its investors using a new technology, not flip properties for short term profits. RealT’s goal of steady streams of rental income puts it more in the category of a mom-and-pop landlord than a large investor. Further, unlike a private equity firm, who runs their business through multiple subsidiaries (which is illustrated by a graph in the Appendix), RealT has a list of all token holders listed on the blockchain, and in the operating agreement filed in the land records. Even in a world where RealT is limited in its growth due to its niche market, other start-ups interested in real estate tokenization can bring more players to the investment game, balancing out the effect of private equity.  

Already, RealT is not the only company tokenizing property—Haus, Propy, SolidBlock, Owny, RealBlocks, and countless others are connecting real estate with the blockchain, or even expanding to new areas of the market—creating “crypto mortgages” or selling homes in the Metaverse. Further, as shown by data about growth in the exchange-traded funds market (ETFs), investors are looking for targeted investment

150. Vogell, supra note 143.
151. The Law360 article series mentioned in notes 145 and 147 investigated property data over several months to connect LLCs, LPs, and funds to the bigger Wall Street private equity firms. See Appendix A for a graph of the author's findings.
152. REALT WHITE PAPER, supra note 5, at 11.
153. See generally Joseph Bizub et al., Blockchain Coming to a Block Near You: How Fintech Is Changing Real Estate Investing, N.Y. REAL PROP. L. J. (forthcoming 2023) (explaining three real estate tokenization companies, one of which is RealT).
opportunities. Real estate tokenization provides that opportunity by allowing investors to choose specific geographic markets and specific homes to diversify their portfolios. Finally, the growth of the decentralized finance movement (DeFi) should not be underestimated. Many investors and cryptocurrency owners participate in the decentralized finance movement, which are financial services on the blockchain separate from traditional banks, because they believe that large banks have disproportionate power over the economy and profit more than normal investors. The value of assets in DeFi products was valued at $74.3 billion dollars last year, and this was a decline from 2021. Investors are looking for targeted investment outside of traditional finance systems, and RealT is one of many companies that fit the bill.

While this perceived “balance” between private equity and tokenization companies assumes (1) that RealT acts differently.

156. Many real estate companies operate only in specific areas, and RealT allows investors to choose specific properties. For example, Haus has options for investors in San Francisco, Los Angeles, Portland, and Seattle. See Tokens: Equity Backed by Location, HAUSCOIN, https://hauscoin.com/tokens (last visited Mar. 6, 2023).
157. See Part II.B. Cryptocurrencies, Blockchain, and Tokenization supra for a cursory discussion of what DeFi is. See also Nathan Reiff, A Brief History of DeFi, DECRIPT (Feb. 9, 2023), https://decrypt.co/resources/a-brief-history-of-defi-learn.
159. The LIBOR scandal, 2008 housing crash, and Silicon Valley Bank’s closure are examples of centralized banks prioritizing profits over people, both as participants in the economy and as investors. See James McBride, Understanding the Libor Scandal, COUNCIL ON FOREIGN RELATIONS (Oct. 12, 2016), https://www.cfr.org/backgrounder/understanding-libor-scandal ("Many experts say that the Libor scandal has eroded public trust in the marketplace."); Michael J. Casey, No, DeFi Is Not a Repeat of the 2008 Crisis, COINDESK (Apr. 8, 2022), https://www.coindesk.com/layer2/2022/04/08/no-defi-is-not-a-repeat-of-the-2008-crisis ("There’s an interdependence between governments and banks that has, at times, morphed into codependence."); Tatiana Koffman, Bitcoin Was Built For This Moment, COINDESK (Mar. 13, 2023), https://www.coindesk.com/consensus-magazine/2023/03/13/bitcoin-was-built-was-for-this-moment/.
than private equity companies and (2) that other real estate start-ups will act similarly to RealT, it shows on a broader level that real estate tokenization may have different benefits than the company intends. While RealT cannot lower costs nor provide property ownership, it may, as part of the broader DeFi movement, attract more investment from those who are disillusioned with the traditional real estate market and its failings in 2008.\footnote{Casey, supra note 159.} RealT also cannot lower the cost of digital adoption, but it is already using what could become a widely used platform for transactions (the blockchain). It is also not clear how cities and government actors will respond to new players in the real estate market—perhaps RealT could play a bigger role if local governments start regulating who owns properties or mandates more affordable housing (through a measure like rent control).\footnote{Emma Whitford, \textit{Wall Street's Single-Family Home Grab, Phoenix – Part 4: Local Response More Whisper Than Roar}, LAW360 (Oct. 19, 2022), http://www.law360.com/real-estate-authority/articles/1540710 (writing about local state government responses to changes in the single-family rental market).} The future is rapidly changing, but RealT’s aligned interests with the tenants of its properties will enable it to be a more humane landlord and allow it to accomplish its ultimate goal of democratizing real estate investment.

E. ILLIQUIDITY

The last issue present in real estate is illiquidity. Real estate is a relatively illiquid asset, meaning that it is difficult to buy and sell properties, which can lead to a loss on investment of up to 30%\footnote{Practical Law Real Estate, \textit{Expert Q&A: Blockchain in Real Estate} (2020) WESTLAW, w-028-2157; \textit{RealT White Paper}, supra note 5, at 5.}. Real estate’s illiquidity is a result of a myriad of factors, including the private markets for real estate (instead of one centralized exchange), the time it takes to do physical title searches of county recorder’s offices and other due diligence tasks, and the access to financing.\footnote{Colton Hoisager, \textit{Understanding Illiquidity in Real Estate Investing}, REALIZED (July 4, 2022), https://www.realized1031.com/blog/understanding-illiquidity-in-real-estate-investing.}

RealT addresses illiquidity by tokenizing properties. Instead of having to go through the process to sell the home, investors can buy and sell tokens easily using the Ethereum
platform. At a conceptual level, what RealT labels as the “illiquidity tax” can also be called the “illiquidity premium.”\footnote{165} Proponents of the illiquidity premium explain that real estate can generate higher returns over longer periods of time because the investor can improve the property, learn about the relevant geographic market and asset classes, and hedge against valuation shifts, which affect private investments more slowly than public investments.\footnote{166} Increased liquidity in real estate can also lead to market volatility, causing a decrease in prices.\footnote{167} While real estate is an illiquid asset, “illiquidity is a necessary evil” to provide the stability and returns that make real estate a good investment strategy in the first place.\footnote{168}

Real estate’s illiquidity can be a cost or a benefit, depending on one’s perspective. If an investor wants a diversified portfolio, an illiquid asset like real estate is a good strategy. If an investor wants liquid assets that generate better returns, a company like RealT can provide the liquidity and a strong asset type. Either way, illiquidity will remain part of real estate, and the method investors use can determine how they address it.

IV. CONCLUSION

RealT’s promise of democratizing real estate is illusory in some respects and realistic in others. Collective ownership and low barriers to investing is not consistent with property law and SEC regulations. Transaction costs will not be decreased, both as a function of this company and of blockchain technology more generally. RealT does, however, provide a targeted investment opportunity for investors looking to build their portfolios outside of traditional financial systems, and allow those investors to compete with private equity firms for a place in the single-family rental market. Despite the discussion of RealT’s viability and inconsistencies with the law, real estate tokenization will likely continue to grow, especially in other countries with different

\footnote{165} Max Sharkansky, \textit{Understanding the Illiquidity Premium in Real Estate}, TRION PROPS. https://trionproperties.com/real-estate-investment-education/articles/understanding-the-illiquidity-premium-in-real-estate/ (last visited Jan. 13, 2023); REALT WHITE PAPER, supra note 5, at 5.

\footnote{166} Sharkansky, supra note 165.


\footnote{168} Id.
property recording systems and more responsive regulators. Investors and scholars alike should bypass the hype of speculative cryptocurrencies and understand the applications of the blockchain to industries like real estate, especially as it connects to existing legal concepts. At the broadest level, there is a future ahead for blockchain technology, especially ones that aspire to modernize systems that have grown too costly and inefficient.

Appendix A

Figure 1. Accredited Investor Requirement.169

Figure 2. Single-Family Home Rentals by Private Equity in Phoenix, AZ.\textsuperscript{170}