Tokenized Real Estate

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Presenting to Sand Hill Angels

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Overview

- A "token" is a denomination of a cryptocurrency.
- Tokenization enables investment in the form of digital tokens backed by real assets.
- Tokens are often described as utility, payment, exchange or security tokens (but its not so simple).
- Recently, 89% of all tradable security tokens were for real estate (2020), with 87% of those being for residential real estate.
- Non fungible tokens (NFTs) are unique digital tokens stored on a blockchain ledger that represent ownership of an asset, either real or virtual.
- In the simplest of terms, an NFT is a proof of ownership.
- An NFT is "minted," or a unique digital code is created, then attached to another asset.
- NFTs are totally unique items. Semi-fungible tokens (concert tickets, gift vouchers and coupons) are often included in this category but technically do not fall within the definition.

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Areas of the Law Not Addressed in This Presentation

- Securities law issues.
- Commodity law issues.
- Money service business registration.
- IP issues
- Anti-money laundering and know your client issues.
- Detailed tax and corporate.
- Estate planning.

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Who Saw It First?

- There is a clear need for financial technology in the real estate industry.
- We can make something liquid out of something that is not liquid.
- REITs are overly complicated and awkward, the securities don’t always reflect the true value of the underlying assets and sometimes reflect only an interest of a general partner (of the underlying partnership that holds the assets).
- REIT’s liquidity is typically dependent on their size.

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Michael Milken, 1996

- Instead, investors could hold a piece of the underlying property directly, without the partnership baggage.
- A developer who wants to build a series of apartment buildings could issue securities to investors directly, just as companies issue stock. And the owner of these interests could trade them whenever they want.
- Local real estate interests could be created, for example in properties only in Florida, or the northeast of Florida, and investors could choose the area of interest and diversification they want – similar to mutual funds.
- Milken believed this securitized real estate market could be as large as the entire debt market.

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Real Estate Industry Generally

- (*Note, all below estimates are from credible sources but credible sources in this space can vary*).
- The US real estate market size was valued at between roughly USD 3.69 to 4.6 trillion in 2021, 40% of the global total, and is expected to grow at a projected compound annual growth rate (CAGR) of 5.2% from 2022 to 2030.
- The size of the global professionally managed real estate market reached approximately USD 11.4 trillion in 2021.
- All agree that the market is large, has limited and often mainly local information, has archaic transfer requirements and is a difficult one for small investors to broach (with limited retail level securitization).
- The industry is capital intensive, especially in the development area, where timeframes can be 7 to 10 years required to develop a property.
- Many touch points exist in a transaction, which is inefficient and leads to costs of approximately 10% of the purchase price.

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Real Estate Industry Generally *(cont.)*

- There has been a shift from bank loans to private lenders generally over the past few years, with, in the US, bank loans accounting for 42.7% of total volume in 2016 falling to 23.7% in 2020. Alternative lenders' share of the market increased from 24% in 2016 to 36% in 2020, overtaking bank loans.
- Larger properties are typically illiquid; they tend to be unique (with a lack of standardization) and require large upfront investment.
- REITs (Real Estate Investment Trusts, typically publicly traded) are one option for broadening the investor base but can take up to two years to plan and execute and have high costs ranging from an estimated 3 to 10%.

One interesting structuring option I saw involved holding a real estate property in an LLC then transferring these interests to avoid needing the change the registered owner. This structure raises a number of issues, but it is creative thinking.

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Definitions – In the Blockchain/Token Space

- A virtual currency (“VC”) is a digital representation of value that functions as a medium of exchange, a unit of account and/or a store of value but does not have legal tender status in any jurisdiction (except El Salvador). VCs are sometimes referred to as CVCs, or convertible virtual currencies, when they are convertible into fiat money.
- A digital token is something that represents a digital asset, whether a VC or a blockchain-based smart contract.
- An NFT is a unique digital code, or token, that represents one or more determined items such as text, images or music, often with the rights to and information about that content.
- A digital code is made up of binary digits that represent letters, symbols, and characters in a digital format.
- Minting an NFT is the tokenization or the creation of a digital ‘receipt’ that is stored on the blockchain. Minting translates into the purchaser being the first person to have ownership of the digital asset. When an NFT is minted it often goes from the creator’s website and then stored in a digital wallet.

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Definitions *(cont.)*

- A smart contract is a self-executing contract with the terms of the agreement between the parties being directly written into a line of code.
- Blockchain is a system in which a record of transactions made in bitcoin or another VC is maintained across several computers that are linked in a peer-to-peer network.
- Peer-to-peer denotes or relates to computer networks in which each computer can act as a server for the others, allowing shared access to files and peripherals without the need for a central server.
- A digital wallet allows users to store funds, make transactions, and track payment histories by computer.
- A cold wallet is a type of VC wallet where private keys are stored strictly in an offline environment. In addition, digital transactions are also authorized offline as well.
- A hot wallet is a tool that allows VC users to store, send, and receive tokens. Hot wallets are linked with public and private keys that help facilitate transactions and also act as a security measure.

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Tokenization More Generally

"Tokenization typically refers, in industry terms, to the monetization of high-value non-financial assets like fine art, collectible cars, rare books, and prestigious real estate, by creating, and issuing to investors, interests in high-value non-financial assets."

Steven L. Schwarcz, Duke University School of Law

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Tokenization or NFT?

- Tokenization and NFTs use different terminology but are similar.
- In both, the interests created are in underlying non-financial assets.
- NFTs have traditionally focused on less tangible assets like the right to display art, while tokenization have focused on more tangible assets like art and collectible cars (or real estate).
- None of these assets, by term or nature, converts to cash within a finite time period.
- Similarly, in both types of transactions, the interests are transferable and evidenced using blockchain (or other FinTech cryptography).

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Tokenization Benefits

- Fractionalization. The programable nature of these interests can allow for unlimited disbursement of and to holders, which hold these "fractions."
- Settlement time is reduced.
- Data transparency.
- Flexibility.
- Liquidity.
- Ability to split economic rights and occupancy or ownership.

Note that the form and structure of a tokenized security is crucial in determining the rights and obligations of the investor in the underlying asset and what form of return they will receive. Legal and tax jurisdiction can be key. One issue with tokenization is whether an enforceable right to an interest in the underlying asset is created.

Non-Cash Flow Monetization (Such as Tokenization)

Non-cash flow monetization changes the monetization business in two key ways:

- To use blockchain to evidence the transfer of an interest. This change primarily affects process, not the actual substance of the interest being transferred. The innovation stops with the automation of the process.
- It broadens investments that previously were limited to interests in financial assets to include non-financial assets.

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Definition of an NFT

- An NFT is a unique digital code, or token, that represents one or more determined items such as text, images, video or music or other experiences, often along with the rights to and information about that content and can also be attached to a real world asset, authenticating it.
- A digital code is made up of binary digits that represent letters, symbols, and characters in a digital format. Further defined, NFTs are cryptographic mathematical units whose function is limited to their ownership and have no further utility beyond their “uniqueness.”
- Essentially, an NFT represents a bundle of rights.

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Fungibility

- A fungible item or token is interchangeable with another unit of the same thing. Bitcoin is an example of a fungible token.
- Non-fungible items or tokens are not interchangeable with each other and contain unique properties which make them different even if they might seem to be similar.
- Real world example of non-fungible items include houses, paintings and tickets.
- Non-fungible tokens are unique, traceable, rare, indivisible and programmable.

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Use of NFTs

- NFTs may be traded with or without the underlying asset, and the ownership of the underlying asset may remain with the creator or can be transferred, in whole or part.
- This ability to now insert a particular piece of information into a digital work of art or other asset (like RE) makes that work non-fungible, unique, and transferable.
- Such usage is rapidly increasing for gaming, real estate and other applications.
- Potentially important for tax purposes, the timing of the NFT can be distinguished based upon when an NFT is “attached” to an asset.
- When the NFT is issued by the artist together with the work, it constitutes the “signature” and uniqueness of the work. If the NFT issued after the work, it becomes a certificate of authenticity.

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Blockchain and Other Underlying Technology

- Blockchain technology is used to create and maintain NFTs and other tokens.
- Blockchains are systems, or underlying ledgers, in which records of VCs, tokens or NFTs are stored, validated, and maintained by peer-to-peer networks.
- Thus, a record of ownership of the NFT or other token is kept and transferred on such digital ledgers.
- To date, most NFTs have been built on Ethereum but newer ones are increasingly using other blockchains such as Flow, Fast Box or Hyperledger.
- However, actual ownership of the underlying asset can remain always with the creator/owner.
- Meanwhile, the "hex values" (essentially codes) created by the original owner or creator, are owned by the NFT owner, and though the raw digital data can be copied, the hex values remain uniquely owned.

Smart Contracts

- NFTs and other tokens are typically leveraging smart contracts for order sensitive transactions.
- To transfer an NFT or other token, the owner must sign the transaction, including, for example the hash of NFT data, and then send the transaction to a smart contract.
- At receipt of the transaction by the smart contract with the NFT/token data, the minting and trading process is initiated.
- When the transaction is confirmed, NFTs are permanently linked to a unique blockchain address.
- The NFT/token owner then stores the raw data in an external database outside the blockchain or can also leave it stored on the blockchain.
- Smart contracts allow for flexibility in what rights and obligations are transferred and are typically self executing.

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Verification of Assets

- The ownership and transfer of these NFTs/tokens are registered online and are universally verifiable.
- This digital verification provided by an NFT/token allows for traceability of the work across the blockchain so the creator or original owner can be determinably linked to the work or underlying asset itself.
- Thus, outside experts are no longer needed to guarantee the asset’s uniqueness, originality or – potentially - title.
- This verifiable link reduces the risk of fraud, allowing buyers to be more certain in their purchase. Also, with NFTs, due to non-fungibility, a holder of the token has exclusivity.

Real Estate Tokenization Generally

- Advantages of the industry expansion.
- Issues within the industry.
- Tokenization and NFTs in real estate.
- Sweden, for example, is planning to create a record of all real estate transactions on a blockchain, with future financings and income distributed automatically.

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Uses Overview

- NFTs and other tokens can be used in the traditional real estate industry.
    - (from Liquefy) the “goal is to transform investment through tokenization, leveraging blockchain technology to increase operational efficiency in fractional ownership, lower the barriers of entry to real estate, and unlock liquidity in previously illiquid assets.”
- And, they can be used for online real estate.
- The market for security tokens (backed by a real asset) is growing rapidly.
    - 5 STOs were launched in 2017, with 55 in 2019.
    - Estimates place the market at $2 trillion by 2030.
- A security token in cryptocurrency represents a certain form of ownership of the underlying business, tokenized and existing in the blockchain. Security tokens can be considered tokenized pieces of valuable real-world assets in the blockchain.
- Tokens can also be used for mortgages, equity loans and in various Defi applications.

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RE Smart Contracts Automate the Process

- The contract, including terms, itself.
- Disclosures and consents.
- Property or investment management.
- Payment of dividends.
- Secondary sales or further fractionalization.
- Voting, as appropriate.
- Vetting of other investors and KYC.

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Real Property Ownership

- NFTs and other tokens can be used to represent ownership of real-world property.
- Deeds currently serve this function, with buyers employing title insurance companies, escrow holders and lawyers to authenticate deeds and search for encumbrances in public title records.
- NFTs and other tokens allow for the ability to eventually potentially bypass trusted intermediaries because blockchains can verify ownership, identify title encumbrances and settle transactions more efficiently.

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Real Property Ownership *(cont.)*

- In May 2021, Propy, helped TechCrunch founder, Michael Arrington, list his apartment in Kiev, Ukraine, as a real estate-backed NFT. The property sold for over $93,000 and Propy touted this achievement as "the world's first real estate NFT." A later sale of a property with an NFT attached occurred in Hyde Park, Tampa for $215,000, also enabled by Propy on April 12, 2022,.
- Such examples remain rare in the United States due to well-established laws and customs within the industry. The real estate industry is perhaps the least centralized and securitized industry.
- tZero is securitizing real estate funds.
- Most importantly, county land record offices do not recognize blockchain based transfers of ownership with NFTs and still maintain their antiquated (local government) registration process.

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Fractionalized Investments

- Real estate investments tend to be capital intensive, with transaction fees totaling approximately 10% of the sales price of a property.
- As a result, entrepreneurs have used NFTs and digital coins to raise funds for their real estate based projects.
- In 2018, the St. Regis Aspen Resort sold an 18.9% ownership stake in the hotel through token sales of "Aspen Coins." Investors could purchase Aspen Coins with U.S. dollars, bitcoin or ether.
- Omni-Psi, a real estate investment startup, raised investor funds by issuing ORT tokens to use for the purchase of properties. Revenue is distributed on an ongoing basis to token holders pro rata.
- Lofty AI is a technology startup that created an online marketplace in which anyone can invest as little as $50 to buy a digital token equivalent to a stake in a single-property rental business. Each token represents a share of ownership in a Delaware limited liability company.
- Vesta Equity – property owners can participate in fractionalized real estate NFT marketplace by securitizing their properties.
- Niftex – a platform that makes fractionalization of NFTs possible, is adding enhanced features.

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Securitization

- Securitization is asset-based financing.
- Fractionalization can lead to securitization.
- The securities created in this area are no recourse, with investors relying on their interest in the underlying asset for repayment.
- With a traditional loan, the investor has an interest in the underlying asset, which often produces income itself. Thus, the investor has “two ways out,” selling the interest/note and the conversion of the underlying interest into cash.
- NFTs and other tokens to date have traditionally been used with underlying assets that are non-income producing, such as art. Real estate as an underlying asset, depending on the interest held, can sometimes produce income (depending on the interest held).

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Securitization *(cont.)*

- If the underlying asset is non-income producing, the investor only has “one way out,” selling the NFT/token itself.
- Most of these related (“token” or “crypto”) markets are not very liquid and, as an NFT is a “unique” asset, it arguably doesn’t really have a fully tradable marketplace. (So, these assets might have neither repayment rights nor market liquidity).
- Some platforms allow for the NFT/token to be “putted” back to the platform in certain circumstances.
- When liquidity through a put right is most wanted, it is likely least possible for the platform to meet demand.
- Note, bankruptcies in the crypto space generally have been on the rise this year.

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Art As A Marketing Tool

- Other platforms use art NFTs to attract interest in their real estate offerings.
- OXO Living, an Indonesian boutique developer, sold NFTs that “represented” the physical homes the company was selling in Bali. The owner of a home had a right of first refusal on the NFT associated with their home. Otherwise, any holder of a crypto wallet could make an offer on one of these NFTs.
- Homeowners seeking liquidity can use platforms such as Vesta Equity to raise equity from their homes by issuing tokens that represent fractional ownership interests.

Loyalty Programs Are Also Utilizing This Technology.

- Marriott Bonvoy, the hotel chain's rewards program, conducted a lottery at Art Basel, Miami, in which NFTs were distributed to three winners. Each winner was also awarded 200,000 loyalty points.
- AMC Theatres awarded appoximately 86,000 NFTs to certain loyalty members during the launch of the Spiderman movie *No Way Home.*

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Metaverse

- In a 2021 report, Grayscale speculated that "the Metaverse is estimated to be a trillion-dollar revenue opportunity across advertising, social commerce, digital events, hardware, and developer/creator monetization."
- In late 2021, Republic Realm (now Everyrealm) paid a record $4.3 million for virtual land in The Sandbox, the largest purchase of virtual land to date.
- Virtual Land Ownership
- Metaverse platforms such as Decentraland and the Sandbox sell parcels of digital land by attaching an NFT to a parcel then recording transactions on blockchain networks like Ethereum.
- At the purchase of a digital parcel, the transaction is recorded on the blockchain, and the NFT is transferred to the buyer's digital wallet.
- Metaverse platforms can authenticate land parcel ownership whenever a user links a wallet to their platform.
- Users can also participate in governance if the platform is operated as a decentralized autonomous organization (or DAO) that allows token holders to vote on initiatives.

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Decentralized Finance

- Defi loans are typically collateralized at 150% the value of the asset or higher.
- Digital property owners can obtain loans by collateralizing their NFTs on various platforms.
- NFTfi is one such platform that match NFT owners with entities that have cash to invest. After the borrower and lender agree on terms, the loan is closed using a smart contract without the need for intermediaries and the NFT is deposited with the platform.
- Note that the underlying assets are risky and volatile (with arguably little liquidity).
- Loansnap "wraps" a lien on a home and the protocol lends against the NFT, generating about a 2 or 3% return for "investors."
- Figue is a blockchain lending company that claims to be building a foundation so that borrowers can skip banks for home equity loans. They have raised about $1.6 billion from investors.
- NFT owners can also fractionalize interests on platforms like Fractional and sell smaller stakes or place NFTs on platforms like NFTx and earn interest on the asset.
- This area is still developing.

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Tax Consequences and Risks

- The IRS has provided guidance that tokens are taxable as property when a recognition event, such as a sale, occurs.
- No de minimis exception exists.
- This area gets complex with resales and sales of different rights.
- General tax principles still apply.
- This topic is a separate program.

Some Benefits of Blockchain Based Real Estate Innovation

- Smart contracts are programable.
- Irrefutable history of ownership.
- Secure, high speed, automated transfers via smart contracts.
- Fractionalized ownership and the addition of an NFT to a transaction.
- Automation of middleman function.
- Increased liquidity.
- Lower barrier to investment.
- Improved transparency.
- Need for infrastructure enhancements can potentially be met.

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Challenges In the Space

- NFT owners may be subject to restrictions on use in the applicable smart contract or terms of use applicable to a Metaverse platform.
- Blockchain platforms themselves are subject to scams and hacks, including cybertheft itself.
- The legal and regulatory framework for the Metaverse are still in infancy.
- NFT buyers and sellers must comply with the legal requirements currently applicable to their transactions, and which are established by the platform on which the transaction takes place. An owner that breaches a platform's requirements could risk losing rights in the NFT hosted on that platform – or, the platform could shut down.
- Local rules, regulations and requirements are not adapted to the blockchain, currently resulting in double the efforts required for transactions such as property sales.

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Challenges *(cont.)*

- Determining which jurisdiction's laws are applicable can be more difficult than in the traditional real estate industry. Real estate historically has been an immovable asset and always subject to local law. The myriad of innovations in this industry seeks to blur those lines.
- The broader blockchain and token based industries are still subject to legal uncertainty, evolving legislation and enforcement and a lack of clarity at times with respect to jurisdiction.
- Confidentiality.
- Current illiquidity.
- Infancy of marketplace.
- Lack of industry standards for blockchain protocol.
- Smart contract failure.
- Lack of broker dealers with relevant licenses to distribute virtual assets.

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Conclusion

- This area is one of huge opportunity.
- But the risks are obviously there as well.
- Real estate as a market has a certain opacity, cumbersome nature, long time frame and high costs.
- Blockchain based tokenization within the industry could revolutionize the industry.
- Innovative companies will find opportunities but will need ongoing guidance on many fronts.

Biography

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Megan Jones focuses her practice on advising companies, investors, family offices and individuals on sophisticated domestic and international tax planning. Megan guides clients on tax and corporate planning arising from the acquisition, disposition and restructuring of businesses, corporations and partnerships both domestically and internationally.

Megan also focuses her practice in the technology arena, including crypto assets, NFTs and block chain technology. Megan's expertise includes advising startup companies and their founders, from the foundational stages to a recognition event. Megan understands how to plan in the context of intangible assets or innovative technology. Her grasp of complex financial statements adds a level of sophistication to her practice.

Previous experience includes working for a globally focused investment bank, doing mergers and acquisitions and public offering work. Megan is an adjunct professor at USC Gould School of Law. She frequently speaks and writes on tax-and other topics and has written three books. An active member in the legal community, she serves in leadership roles including on the prestigious USC Tax Institute planning committee. She is Chair of the tax executive committee at the Los Angeles County Bar Association.

An education advocate, Megan is on the board of directors of the Mr. Holland's Opus Foundation and advises schools on a pro bono and regularly retained basis.

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