Tbilisi 2022 Abstract Submission

Title
Will tokenization change the way we understand fine wine? Theoretical layout and future prospects.

I want to submit an abstract for:
Conference Presentation

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Keywords
Wine, alternative asset, tokenization, blockchain

Research Question
What are the implications that arise from understanding fine wine as a tokenized asset?

Methods
Systematic study through mixed methods.

Results
The fine wine market could in the long term benefit from adopting wine-backed tokens as a medium of exchange, although linked to an uncertain current legal and political landscape.

Abstract
The past decades have seen a growing interest in the study of fine wine as an alternative investment. Its high returns and potential diversification benefits have supported the argument that fine wine is a viable investing collectible. In order to invest in fine wine, auction houses or wine funds such as the Liv-ex constitute the main available options. Other market components, such as specialised warehouses, complete the picture, providing trust and security while handling the storage of fine wines. Trading wine incurs in additional costs as these aforementioned businesses are paradigmatic to the current market structure. Transactions can take long and information asymmetries, coupled with the uncertainty of wine's vintage effect constitute barriers of entry for newcomers who may not have the required knowledge to navigate the wine market. It is also debatable whether

fine wine returns are actually a product of currency risk and liquidity risk as fine wine has become a globally traded asset and it often lags a couple months behind the general market trends.

The adoption of blockchain technology within the business world could prove useful in overcoming these limitations. Blockchain was born in 2008, when pseudonymous author Satoshi Nakamoto published the Bitcoin whitepaper. Bitcoin is a digital payment system where all entries and events go through a distributed ledger called blockchain. Blockhain records are verified through a consensus mechanism and, once included, information is immutable. The decentralized, transparent and immutable nature of blockchain has triggered a technological revolution, allowing for the foundation of an open and democratic digital economy.
The main downside of Bitcoin in terms of functionality was that its base blockchain layer could not host more complex applications besides simple transactions. As an answer, Ethereum, another decentralized open-source blockchain, was launched in 2014. The main innovation behind Ethereum was its capacity to run smart contracts. Smart contracts are a set of self-executable rules whose complexity may vary from simple examples as the functioning of a vending machine to Decentralized Autonomous Organizations. Smart contracts open a realm of new possibilities, where decentralized applications are being built in areas such as finance, logistics or videogames.

Among the various promising applications, in this working paper we conduct a systematic study on how one could tackle the fine wine industry: tokenization of assets. Tokenization within a blockchain consists in representing something of value as a unique token within the ledger. This token could represent intangibles, namely an ID, driver’s license or voting rights, or tangibles like assets. By digitizing property, asset tokenization changes the way value is understood, and different drivers arise that justify its adoption. These drivers can be classified as democratization, increased liquidity, disintermediation, increased transparency, process optimization and digital scarcity.

Understanding fine wine under the lens of tokenization could have some positive implications. We first delve into how investing in tokenized wine could present a number of advantages over the current model, where auction houses, specialized exchanges and third parties in charge of storage and bottle-ageing of fine wine bring confidence and liquidity to consumers, collectors and investors. Wine tokenization allows for infinitely faster exchanges, without the need for the long process of buying and selling at events or auctions. Getting rid of some of these intermediaries can reduce the costs associated with each trade, or monthly fees required to operate via an exchange. In terms of transparency, tokens can contain key information, such as the origin or subsequent traceability of the wine that exists as a collateral, contributing to the trust and security necessary for a transaction to take place.

Today, the sector is still a long way from enjoying the potential that this technology can achieve in the future. We examine the current limitations of early stage wine tokenization solutions. There is little to no liquidity of tokenized wines, and there is no well-organized marketplace focused on the exchange of wine tokens. The ownership of a wine can be digitized, but in most current use cases it still relies on a large number of intermediaries and custodians. This can undermine the assurance of the token being backed by a wine, and that such wine has been properly preserved. Further, it is still too early to talk about network effects, as there are neither a large number of users nor a number of relevant figures in the wine sector who are admittedly working on applications that focus on tokenization.

We pose how some of these problems would be solved if future tokenization of fine wines were to take place at the winery. Wineries, as the protagonists behind the creation of these wines, are the best qualified actors for the custody of tokenized bottles. The intervention of storage companies would not be necessary, and the guarantee behind the physical integrity of each wine would be maximum. Wineries can also offer the option to burn the token in exchange for the wine being sent to a physical address, increasing investors choice, or implement royalties associated with the latter exchange of wine-tokens. Fractionalizing is another possibility where smaller investors could increase their exposure to wines that were before out of their reach, potentially affecting liquidity. On the other side of the spectrum, the fine wine market related to auction houses and specialized exchanges would had to adapt, as there would be an alternative investment medium backed by the wineries. The result of a model based upon winery-tokenization could translate into benefits for producers and consumers, who could enjoy a broader range of options compared to the actual landscape.

The main drawback that wine tokenization applications could encounter lies in the political and legal framework. Given the fact that the legal status of a token as property is dubious in most countries, we establish that wineries may have to act as custodians in order to account for the sales of their wine-backed tokens. This makes it difficult for buyers and wineries to interact. If the legal framework does not exist to recognize a token as property, some KYC (Know Your Customer) process may be needed to identify the owner of the wine in custody. Not only that, but further exchanges should also account for the KYC of new owners to allow the token burn and physical reception of wine mechanism.

The ascent of blockchain technology into the business world has opened a new realm of possibilities for the digital economy. Asset tokenization is one of such new developments, where transferrable and unique tokens within a blockchain are backed by real world assets. This working paper revolves around how the fine wine market could potentially benefit from introducing wine-backed tokens as a new medium of exchange. Applications related to wine tokenization have recently been developed, but they still have limitations in the form of reduced liquidity, dependence on intermediaries and little ability to enjoy network effects. Despite the legal and political uncertainty surrounding innovative technological concepts such as tokenization, the changes that this concept could bring to our understanding of the fine wine market require that we lay down the theoretical framework behind such phenomena.

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