

The impact of tokenisation on property law

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«New solutions to old property problems»?

- Security
- Certainty
- Speed
- Cost

Two «layers» of «property»

- Tokenisation implies a «dominion» over assets...



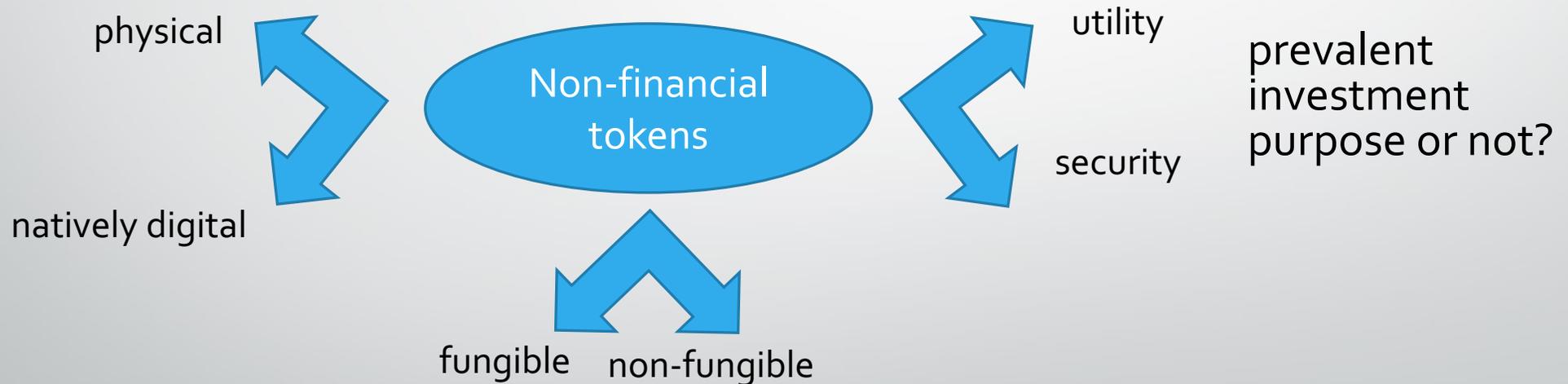
... mediated by digital instruments that represent a property right (**digital assets**)



- Preliminary question: can **digital assets** be the subject of property rights?
- No common definition and legal framework for **digital assets**

Defining the topic

- Non-financial tokens (i.e. *not* equivalent to securities)
- They cross traditional categories



Movable assets

- Physical goods (corporeity) (except immovable or otherwise registered)
- Digital twin operations → allow transfer of the asset through transfer of the token
→ a need recognised by the law for a long time
- Similarities to traditional (dematerialised) securitisation
- Does the transfer of a token from wallet A to wallet B implies a transfer of property?
 - Exchange of consent systems (It, Fr, Uk)
 - Delivery as essential element (D + (also valide title) NL, Esp)

Transfer of token in the context of a smart contract as delivery delivery of the good (true or symbolic, as under Roman law)

Movable assets

- Person who has the availability of the token in his wallet is legally entitled to obtain the material availability of the asset it represents
- Problems can arise in relation to the dichotomy between off-chain and on-chain worlds
 - Factual situation does not correspond to the one represented in the ledgers
 - Constitutive title is invalid (upstream defect invalidates the legal situation)
- In both cases, ordinary remedies appear possible, even though
 - Courts will need to rely on experts to investigate the content of the token → problems of interpretation
 - Self-executing nature of smart contracts might complicate enforcement

Movable assets

- Joint ownership
 - Assets co-owned in the off-chain world (or transferred to multiple people through tokenisation) → multi-sig wallets
 - Fragmentation of assets → multitude of people acquiring multiple tokens (thanks to divisibility of Bitcoin up to the eighth decimal digit → 100.000.000 subunits). Then circulation on secondary markets. Much more efficient than traditional methods. Legal issues: burdens and responsibilities of each co-owner, right to request judicial division at any time → legally viable to limit such rights with a clause in the smart contract? Creation of an SPV to be the sole owner of the asset, and then its shares are fragmented?

Immovable assets

- Many advantages
 - Lower costs (disintermediation)
 - More liquidity
 - Democratisation of investment opportunities
 - Lesser immobilisation of wealth
- Most considerations made with regard to movable assets can be applied
- What is problematic is the need for particular formalities for the validity or «opposability» to third parties of transactions (notarial intermediation) → apparently insurmountable obstacle (only alternatives appear contradictory) → cfr. Liechtenstein not regulating tokenisation of real estate
- Further problems identified by legal scholarship (Garcia Teruel)
 - Control of the identity of the parties
 - Validity of the circulation contract → smart contracts can only verify performance ex post facto, cannot do an ex ante evaluation
 - Management of co-ownership
 - Difficulty / impossibility of amending the register

«Immaterial» assets

- No corporeality, not physical goods
- Two levels of «incorporeality»: on the token and on the underlying asset
 - «Reified rights» → intellectual and industrial property rights
 - Advantages: security, certainty, uniqueness, reliability (cf. timestamp for the management of copyright). Problems similar to immovable property (similarly, a form of legal monopoly), even though less insurmountable
 - Also possible for authors to tokenise (some components of) their copyright and exploit it
 - Natively digital goods (e.g. digital art) → unique representation by NFTs. All digital objects sold as unique thanks to their representation by non-duplicable and non-replaceable tokens
 - Are these digital objects subject to property in the strict sense?
 - Fairfield: «NFTs are personal property, not contracts (despite the «smart contracts» popular nomenclature) or pure intellectual property licenses»
 - vs Moringiello & Odinet: «NFTS do not actually embody property rights in a reference asset. [...] They are not *proptertizing*»
 - A protagonism of NFTs might mean a renewed protagonism of property rights

Conclusions

- Increasing number of economic sectors involved
- Impact of tokenisation on many fields of the law: contract law, company law, securities law, regulatory compliance
- Impact on property law still requires much investigation
- Traditional categories are arguably the best approach:
 - movable → easiest (legally)
 - immovable → most difficult
 - immaterial → intermediate difficulty
- To be monitored: how much of the original anti-governmental momentum will be maintained: NFTs as the anticipation of «the future of digital property», whereby «government will lose its unique power to mint currency and protect property, because people will instead trust the implacable math of blockchain networks» (cf. Szabo's prescient ideas of smart property), OR no such crypto-libertarian scenario, and similar evolution to the internet, where state sovereignty is far from overcome? We can only wait and see

Thank you!



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