

# WHAT IS A SMART CONTRACT

This note provides a basic overview of smart contracts. See also: What is blockchain?

# **SMART CONTRACTS**

- "Smart contract" is an umbrella term for "smarts" or computer code with no single legal definition.
- Smart contract code runs on certain blockchain systems (e.g. ERC-20 or ERC-721 using Ethereum).
- When the pre-defined conditions (A) are met, the blockchain ledger maintained on the network automatically updates with the pre-defined outcome (B), e.g. transfer of ether.
- Smart contracts:
  - are referred to as auto-executing or selfexecuting contracts.
  - may not always form enforceable legal contracts.
- Smart legal contracts are a subset of smart contracts that satisfy the conditions necessary to form a binding and enforceable contract.

Smart contracts

Smart legal contracts

# Smart contracts may be:

- Internal smart contracts: smart legal contracts that capture the entire agreement between the parties, e.g. a transaction on standard binary terms selling a digital asset from Alice to Bob. There are two types, those written:
  - Fully in code the code represents the whole agreement between the parties, superseding explanatory human-readable clauses.
  - Partly in code the code contains the operative terms of the contract and supersedes the human readable clauses.

## **EXAMPLES:**

### **Payment solutions**

BMW, General Motors and Ford are reportedly testing blockchain payment systems in their cars.

Mastercard is reported to have launched its own blockchain network to make cross-border payments using smart contracts.

#### **Voting**

AC Milan fan token enables voting on soccer club motto.

Juventus and Paris Saint Germain have announced deals to create official fan tokens. This will likely encourage fan engagement and enable token holders to vote on decisions.

#### **Derivatives**

ISDA have issued legal guidelines for smart derivatives contracts on the assumption that certain terms in the ISDA documentation can (and may be) represented in computer code or performed across a technology platform.

- External smart contracts: are negotiated contracts with bespoke terms and no binary outcome. Quantitative elements (e.g. token transfer, payments) may be automated. Written mainly in human-readable language that prevails over the code (an interpretation clause should state this).
- Opinion piece: External contracts may more easily satisfy requirements of being enforceable legal contracts under Jersey law because humans can read, understand and accept their terms.