

# Why The Rise of Digital Assets Will Transform Capital Markets Operating Models



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The blockchain/crypto/digital/de-fi evolution of financial services continues to gather momentum – with industry commentators predicting business model disruption that delivers a banking industry that looks very different from today. But whilst conceptual parallels with the world of crypto stimulate debate and industry consortiums explore proof of concepts, many across the industry struggle to conceptualise what this transformation could actually mean in practice. And for market participants across the value chain, what opportunities and threats does this create for their business models?

Being able to make sense of this mix of technology, process and asset innovation that is sweeping across the industry is a key start point to any transformation journey. And a key start point is the importance of understanding where you are before you can consider where you want to be.

## The Four Models of Transformation

Much of the terminology associated with digital transformation can be confusing, as labels are often used inter-changeably. Here we attempt to define the four stages of digital transformation and the characteristics associated with each one.

### Stage 1 – The Bearer Model

This is characterised by a physical form of an asset, whereby ownership is associated with actually holding the physical form. Let us imagine this as a bearer security, whereby physical copies are exchanged to support transactions and market participants record these ownership changes in an internal physical ledger to keep a record of what they own. Very much the stock market of days gone by, whereby runners would move around the City of London collecting and distributing securities between market participants. And the associated reconciliation and process steps to support these transactions were entirely manual. Dividends or coupons were clipped from the actual certificate and sent to the paying agent to claim income.

Dematerialisation of securities and legislative change has all but made this model redundant for securities processing. But it provides an important reference point for understanding the digital journey within capital markets.

### Stage 2 – The Electronic Model

Dematerialisation of securities meant that the ownership model changed such that these records were now held electronically. Gone were the runners physically exchanging securities as the process became electronic and ownership was recorded on the books and records of a central securities depository (CSD) or registrar.

Manual processes between counterparties still exist (such as confirmation, matching and instruction for settlement) but data is shared increasingly electronically. But although information is shared through email, downloaded from websites, or even received by fax, users cannot interact with the underlying data itself. Data has to be extracted and managed bilaterally by each organisation, who maintain an independent representation of the trade and its lifecycle events on internal systems (settlement platforms or even spreadsheets) to support processing.

This model continues to dominate much of the trade processing that exists across banking today.

## Stage 3 – The Digitised Model

Ownership continues to be recorded centrally in dematerialised form and information exchange is electronic between participants. But the key change in this model is that transaction data and the supporting processes to manage it are maintained on a common platform. Participants publish and subscribe data to/from the platform and the transaction lifecycle is driven by a common data set (not bilaterally exchanged views of internal data). Gone are the emails and spreadsheets that are exchanged between market participants, replaced by workflows where users can interact with the underlying data to resolve exceptions. For example, to agree changes or match items. Organisations continue to maintain independent representations of this data internally, but this is for record keeping processes as opposed to driving the trade lifecycle process.

In the digitised model, processing requires no manual tasks as smart automation and configurable rules increase automation, unless to resolve genuine exceptions or provide approvals (for example, high value transactions).

This 'digital ops' model has emerged across certain asset classes – example, the emergence of Cobalt within FX markets – and also for certain processes – example, Acadiasoft emerging to play this role for margin call processing.

## Stage 4 – The Digital Bearer Model

This is characterised by the ownership records becoming digital, where the digital record itself is proof of ownership. Not an electronic entry in a ledger within a market infrastructure provider. Owner (or permissioned user) has the ability to modify ownership by directly instructing transactions, rather than requiring an intermediary to provide this service. Execution and settlement are effectively bundled together, as transaction processing requires various pre-trade checks (do I have the asset/am I permissioned to action changes to the asset/do I have cash to pay for the asset/can I transact with the counterpart etc) to be completed before the trade can be executed. This facilitates or enables near-instantaneous settlement, as all participants are transacting on a single ledger. Permission is granted to the ledger by the asset owner, who may choose to delegate their responsibilities to service provider or may decide to undertake them themselves.

This digital record ultimately becomes the golden source of information, which can also be permissioned to allow supervisors (such as regulators) access to support reporting obligations. The ledger itself also provides the single source of valuation (to support pricing or margin calculations) and also entitlements (for corporate action or dividend processing).

Crypto assets (such as Bitcoin or Ethereum) are currently supported within this model. Mainstream adoption for broader assets is still very much in its infancy but the benefits to capital markets players of faster, cheaper and more efficient processing make adoption attractive.

## So, What Does This All Mean?

Many organisations continue to grapple with the cost and complexity across their middle and back office – with some spending in excess of 30% of their total revenues on technology and operations. The cost is significant, as not only does this impact the bottom line but also hinders both agility and responsiveness to changing market dynamics.

Understanding where your business model sits on this process model continuum is a key first step to operating model transformation – as this enables the opportunity for transformation to be scoped and the enablers identified. And of equal importance is ensuring that this perspective is a front to back view, from customer through the front, middle and back of the organisation. Organisations typically exhibit different stages of maturity throughout their front to back process, with digitisation of processes often being achieved within the front office but still relying heavily on the electronic model for much of the middle and back-office process.

Once this is clear, an organisation can then bring ambition – ‘where do we want to be’ or ‘how fast do we want to move’ – to the discussion. And then leverage technology or service adoption to bring that ambition to life. Full digitalisation of assets may not be the endpoint for the journey for every business model, where sufficient benefits materialise through earlier stages. What is critical for businesses within this new age however is for this is to understand where you are and where you want to be.

## And What Should I Do?

1. Undertake a process model assessment, per asset class or per business model to understand where you are. And as importantly, where is everyone else?
2. Align your strategy and ambition to the output to determine the opportunity – as an example, can a migration from model 2 to model 4 leapfrog the competition to grow market share? Or could it deliver enhanced margins to existing market share?
3. Bring solutions to enable the opportunity – which could be Fintech products, third party service adoption of FMI usage. There is no one size fits all, different objectives require different solutions. But the solution sets **enable** the opportunity, they are not **the opportunity** itself

## Need Help?

We have extensive experience in delivering process model assessments, articulating how these align with strategic objectives and then bringing innovation to deliver a successful outcome.

**Take control of change, with a partner you can trust.**

If you need to deliver complex transformational change with fast positive impact, contact us today

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