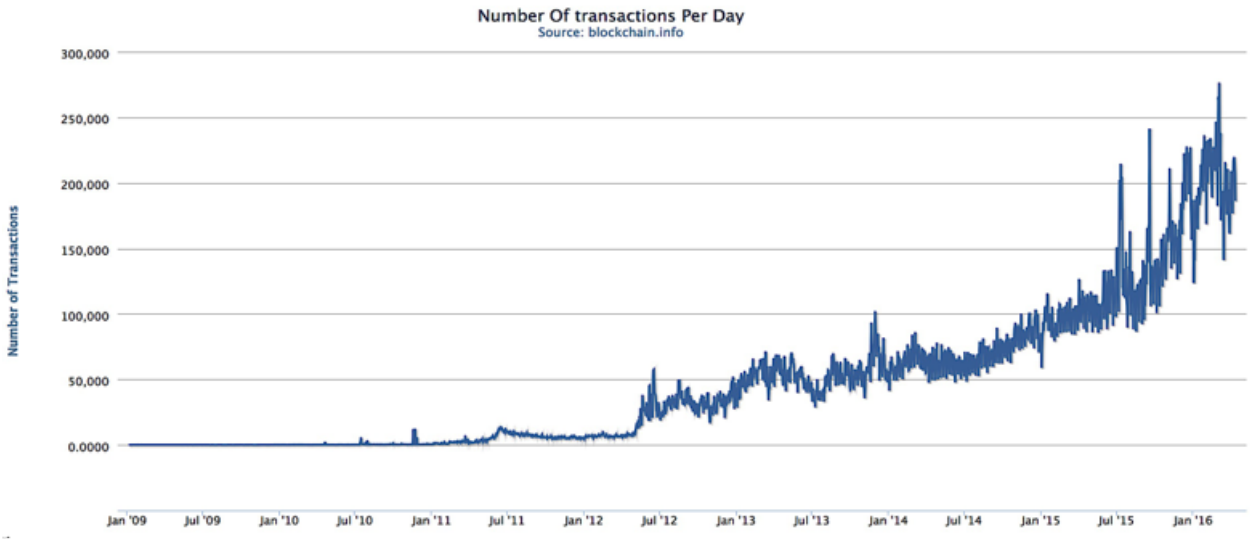
Annexes

Figure 1: Number of transactions per day (BTC)



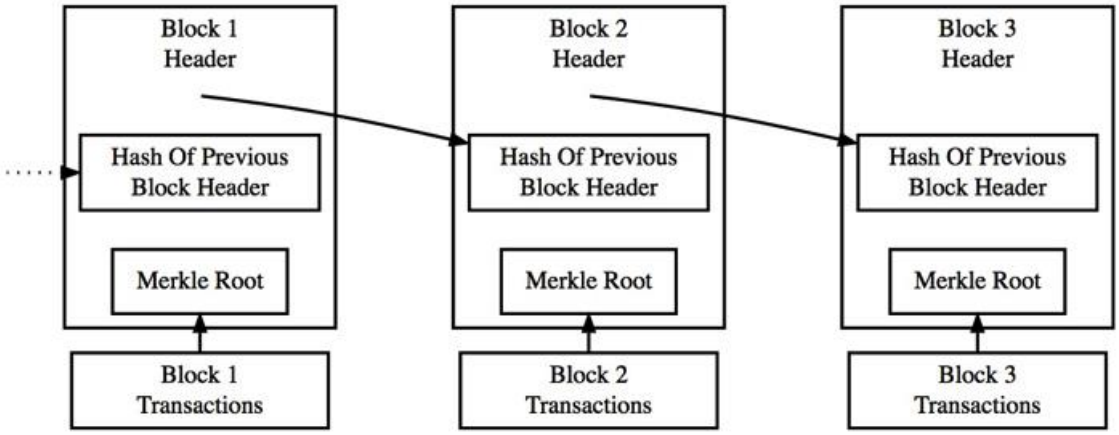
Source: Blockchain.info (2016)

Table 1: Blockchain applications beyond currency

Class	Examples
General	Escrow transactions, bonded contracts, third-party arbitration, multiparty signature transactions
Financial transactions	Stock, private equity, crowdfunding, bonds, mutual funds, derivatives, annuities, pensions
Public records	Land and property titles, vehicle registrations, business licenses, marriage certificates, death certificates
Identification	Driver's licenses, identity cards, passports, voter registrations
Private records	IOUs, loans, contracts, bets, signatures, wills, trusts, escrows
Attestation	Proof of insurance, proof of ownership, notarized documents
Physical asset keys	Home, hotel rooms, rental cars, automobile access
Intangible assets	Patents, trademarks, copyrights, reservations, domain names

Source: Adapted from Swan (2015)

Figure 2: Bitcoin blockchain



Source: Adapted from bitcoin.org (2009)

Table 2: Standard transactional model versus blockchain-based transactional model

Standard	MODEL	Blockchain
Trusted third-party / central coordinator	Paradigm	Trustless system / pseudonymous participants
Centralized server / many clients	Architecture	Peer-to-peer network
Single copy	Database	Multiple copies
Controlled access / firewalls	Security	Cryptography
Intermediation	Price / Cost	Consensus / proof-of-work
PRIVATE	⟷	PUBLIC

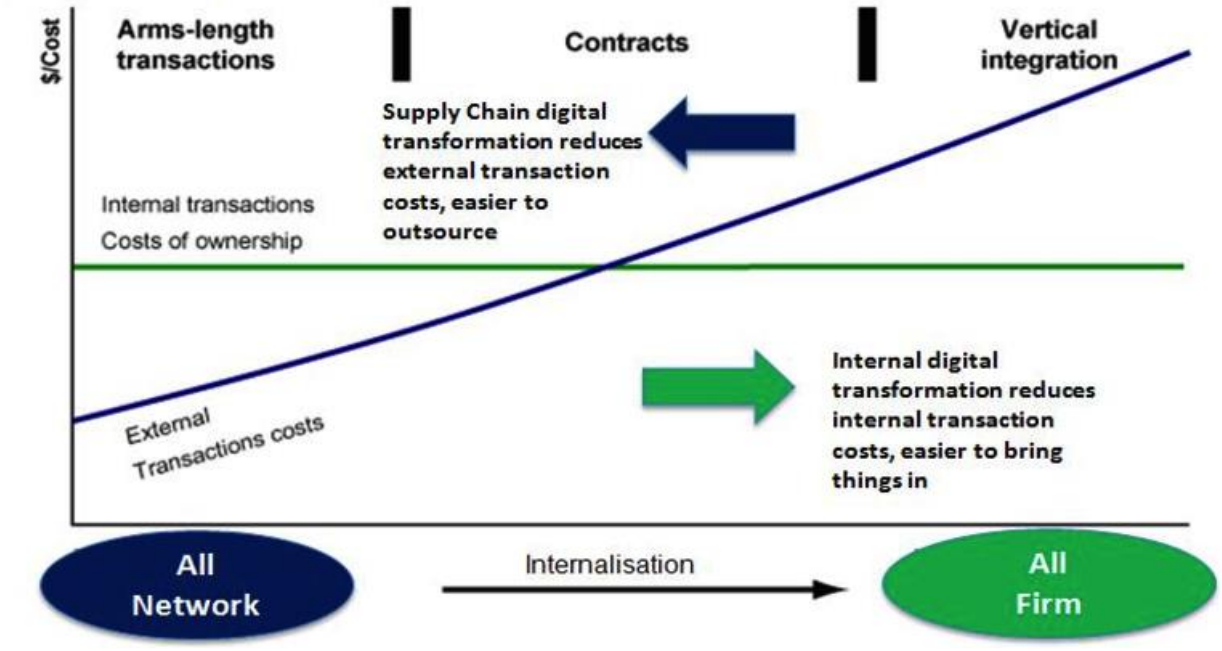
Source: Adapted from Collomb & Sok (2016)

Table 3: Transaction types, their complexity and the coordinating mechanisms

Transaction Type	Complexity	Coordinating Mechanism
Arms-length transaction	Simple, low cost	Market
Contract	More complex	Market and Firm
Vertical integration	Highly complex	Firm

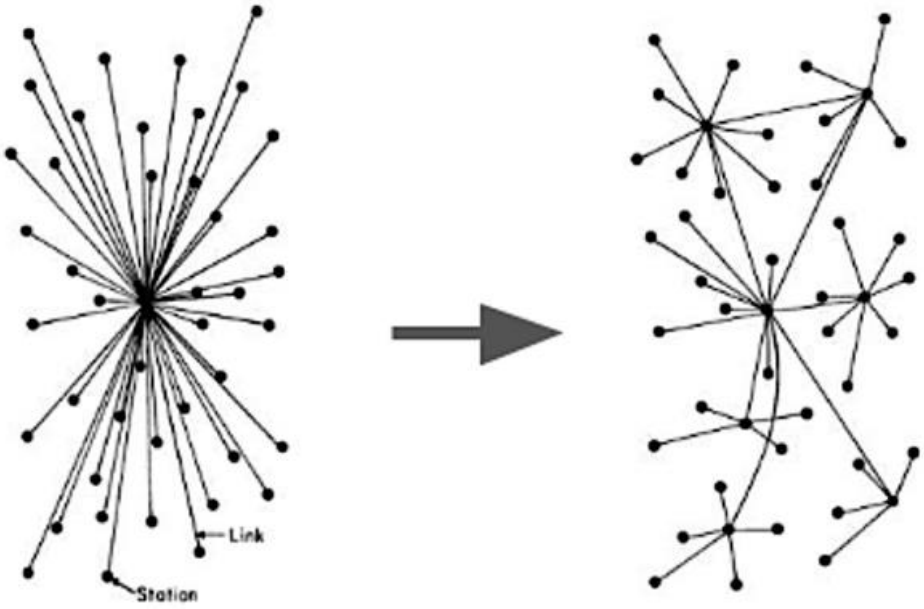
Source: Adapted from Patrick (2015)

Figure 3: Transaction Cost Model



Source: Adapted from Patrick (2015)

Figure 4: The shift from centralization to decentralization



Source: Adapted from Wright & De Filippi (2015a)