
**Intergovernmental Working Group of Experts on
International
Standards of Accounting and Reporting
(ISAR)**

35th SESSION
UNCTAD-ISAR Workshop
Room XXVI, Palais des Nations, Geneva

Monday, 22 October 2018

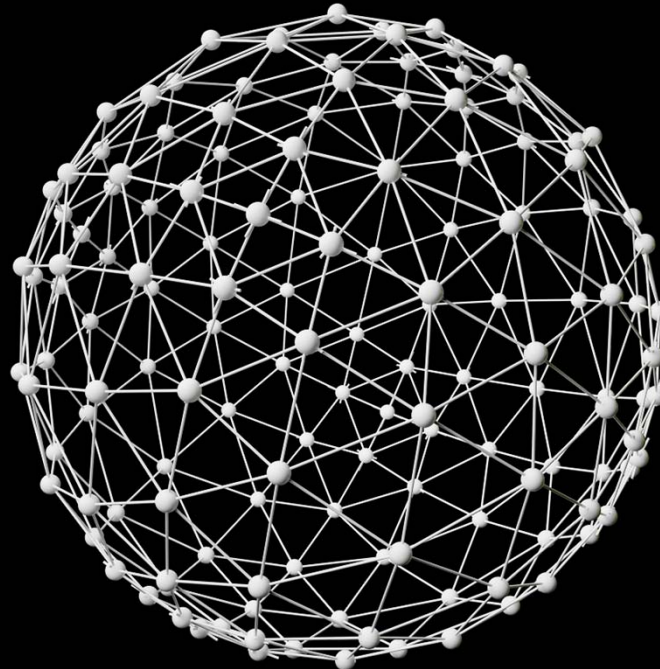
**Digital currencies and blockchain: implications for
accounting**

Presented by

Marco Grossi
Director
Deloitte

*This material has been reproduced in the language and form as it was provided.
The views expressed are those of the author and do not necessarily reflect the views of UNCTAD.*

Deloitte.



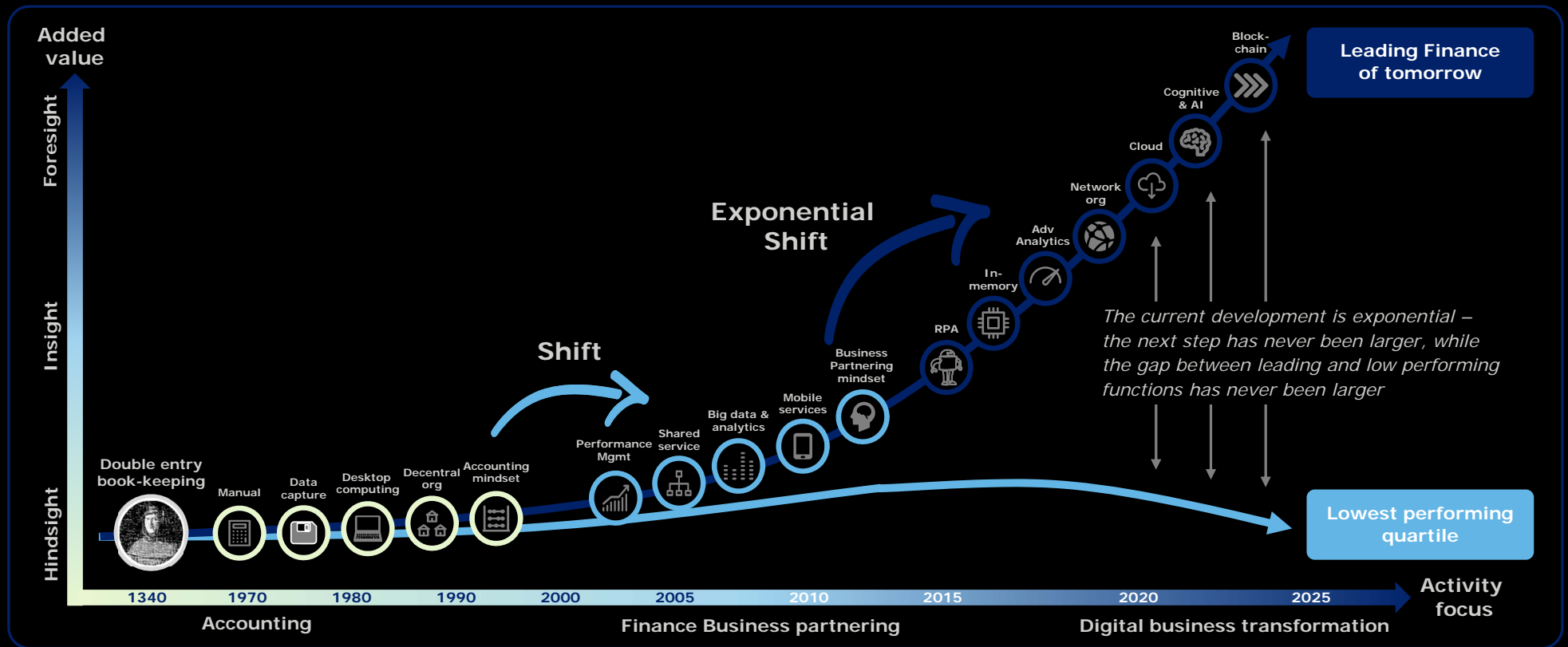
Blockchain: Implication for Accounting and Audit
UNCTAD-ISAR - World Investment Forum 2018

Geneva, October 22, 2018

Marco Grossi – Director – Audit & Assurance Blockchain - Deloitte Switzerland

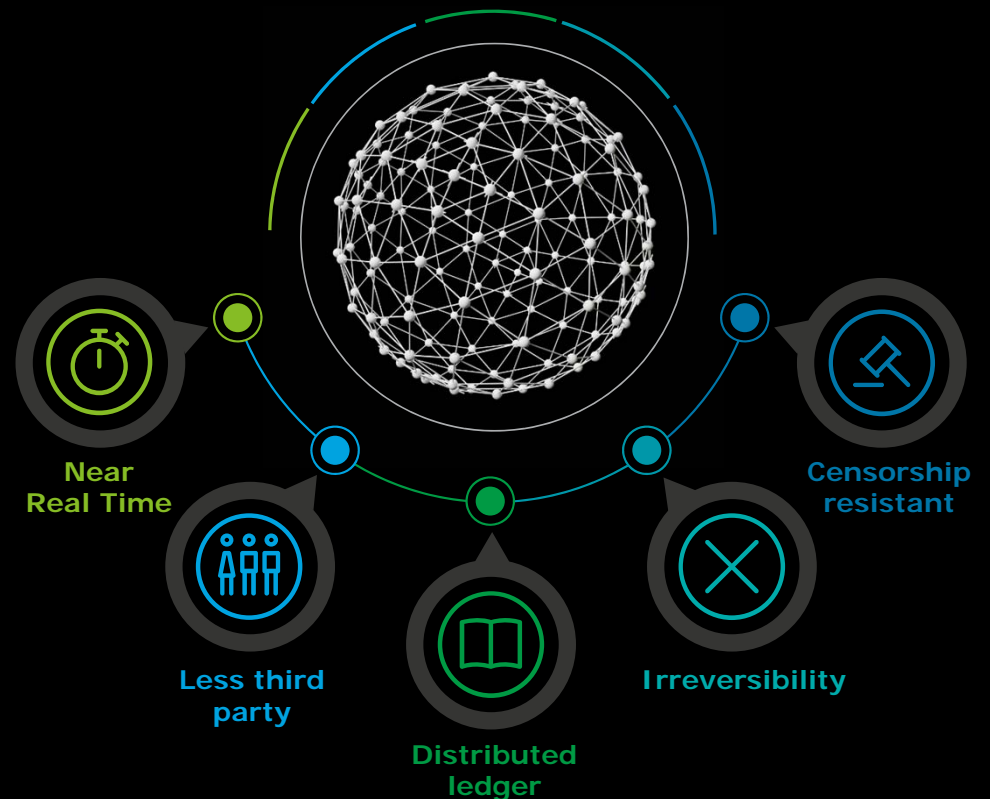
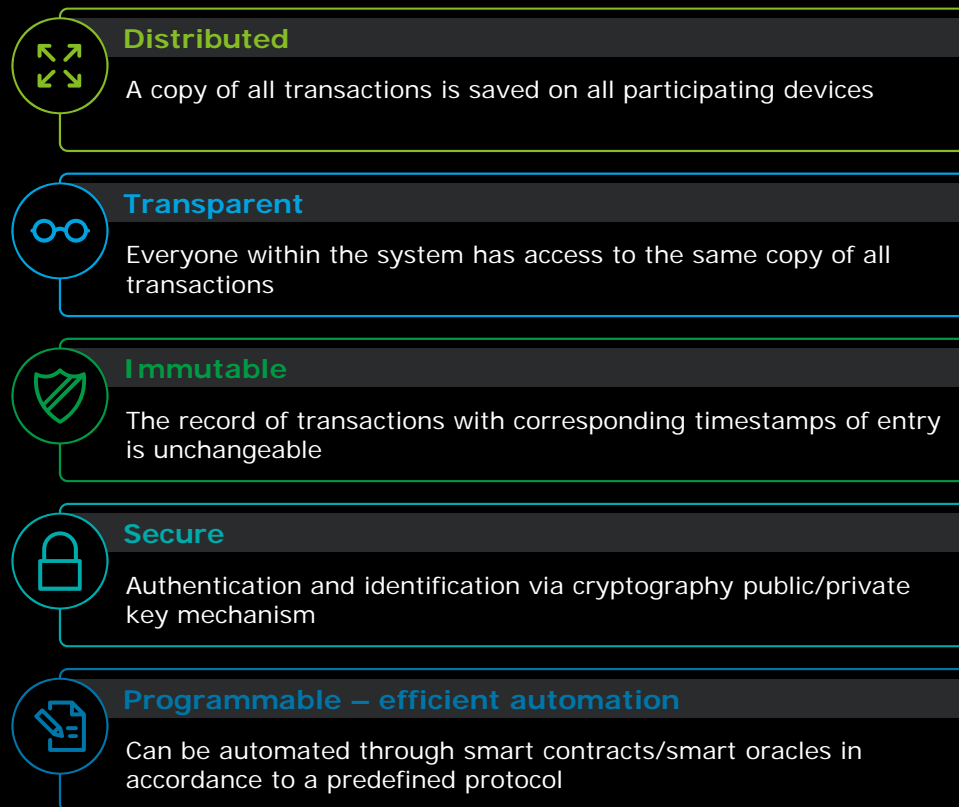
Digital Disruptors

What does digital disruptor mean for your companies development?



While defining blockchain and the benefits...

A blockchain is a digital, chronologically updated, distributed and cryptographically sealed record of all data transfer activity





CONTENTS

Blockchain impact on Accounting and
Audit – the Journey

Accounting and Audit impact – From short – to long term journey

The impact along the journey – a possible scenario

New Assurance Services

- Audit of Smart Contracts and “Oracles”
- Administration Function
- Arbitration Function
- Fact finding reports
- Cryptographic/ Algorithm Assurance
- SOC/ISAE reports and IT Infrastructure reports
-

- Using available tools
- Set bespoke audit approach
- Use Interpretation of actual accounting policies

Today

Short Term Impact

Mid Term Impact

Long Term Impact

- Having a node to the Blockchain and use own database
- Blockchain is linked back to Accounting systems
- Use an audit tool (Blockchain – Node – Big data environment – analytics scripting)

- Automation granted also through other emerging technologies (AI, Analytics, RPA, Machine Learning)?
- Standardization?
- Triple accounting entries, automation of transaction, accounting and audit?
- New accounting policies and audit standards?



CONTENTS

New processes and business models – risks and opportunities

Syndicated Loans tomorrow; blockchain as strategic enabler



Disintermediation

Removes need for Agent Bank to act as arranger or provide ongoing operational support



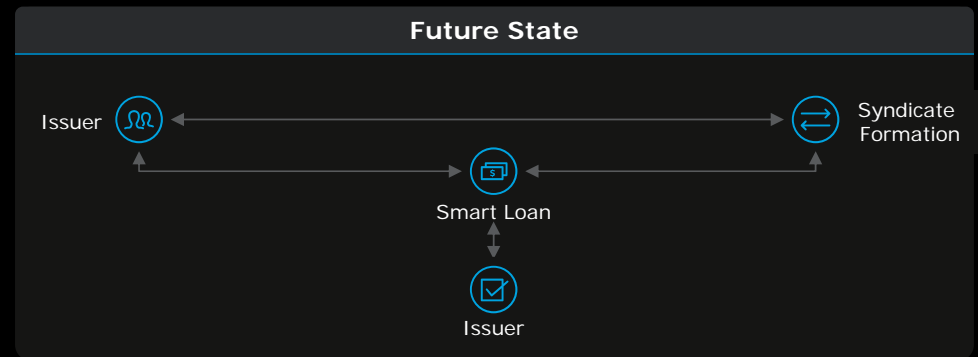
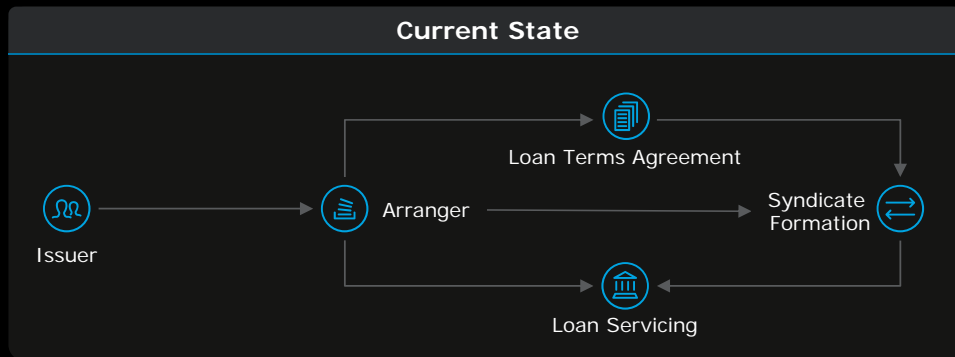
Efficiencies

Transaction data is maintained on the blockchain and the 'smart contract' concept could be used for ongoing loan repayment



Audit Trail

Original terms of the loan and syndicate member information can be maintained throughout the life of the loan



Illustrative scenario

Loan Origination

Blockchain strategic enablers

- Direct interaction with interested counterparties that would traditionally comprise the loan syndicate
- Reduction in cost associated with the loan origination for a syndicated loan
- Opportunity for increased investor pool not traditionally part of a syndicated loan

Ongoing Operational Management

- Reduction in cost associated with the ongoing operational management of the loan usually performed by the agent bank
- Leverage the 'smart contract' concept of blockchain by holding all of the loan terms and payment details on the blockchain

Loan Repayment

- Payments can be automatically generated and sent to the members of the syndicate
- Further reduction in operational costs and reduction of risk due to manual processing or ongoing data errors

Financial Data Management; blockchain as strategic enabler



Disintermediation

Removes the reliance on banks and other counterparties to provide timely credit information and documentation



Efficiencies

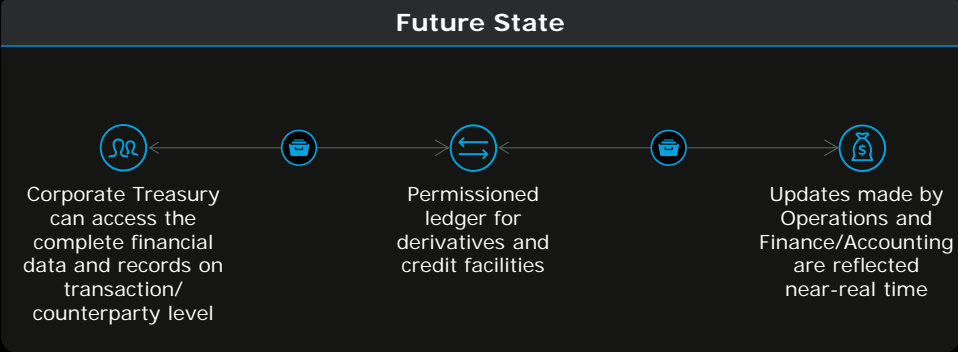
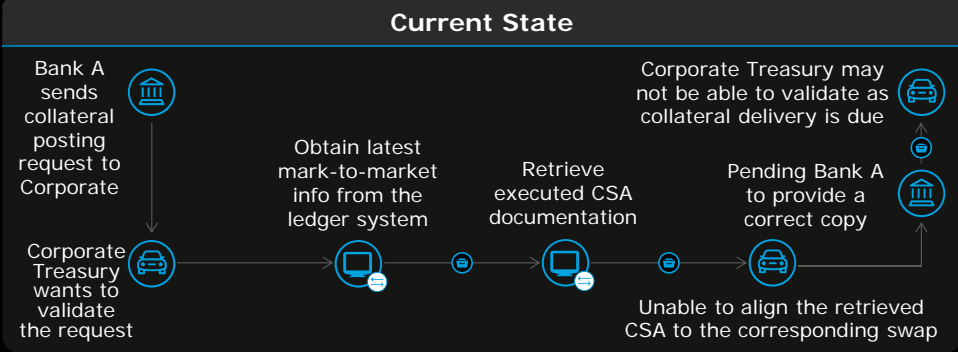
Distributed ledger enables transparent real-time data transfer and reduces the need for reconciliations and disputes



Audit Trail

Immutable permissioned/memorialization on permissionless ledger enhances ability to trace credit information and reduces data errors

Ongoing Collateral Requirement Management:



Illustrative scenario	Blockchain strategic enablers
New Transactions	<ul style="list-style-type: none"> Shared ledger allows Corporate to track all the issued term sheet details from the financial institutions' lenders and links back to the finalized closing terms Corporate and comparable corporations can potentially share historical pricing offers in order to improve pricing visibility and benchmark the marketplace more accurately
Outstanding Credit Facilities	<ul style="list-style-type: none"> All the financial data, terms and related documentation are linked on the permissioned ledger (private or a consortium chain) on a transaction or counterparty level The immutable linkage provides an audit trail for both internal and external reviewer Enhancement on financial data transparency and quality allows Corporate to manage its liquidity risk across its global operations more effectively
Derivatives	<ul style="list-style-type: none"> Smart contract template allows Corporate to store and maintain both draft and negotiated versions of ISDA and CSA; and the collateral posting requirement and various default triggers can be monitored more efficiently Potential disputes on trade terms between counterparties are mitigated

Cross-Currency Payment Management tomorrow; blockchain as strategic enabler



Disintermediation

The Cross-currency payments on blockchain technology allow for the disintermediation of correspondent banks



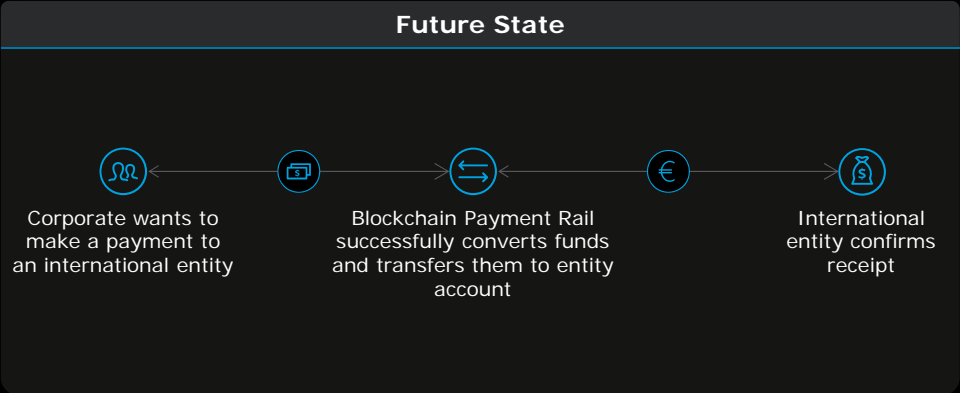
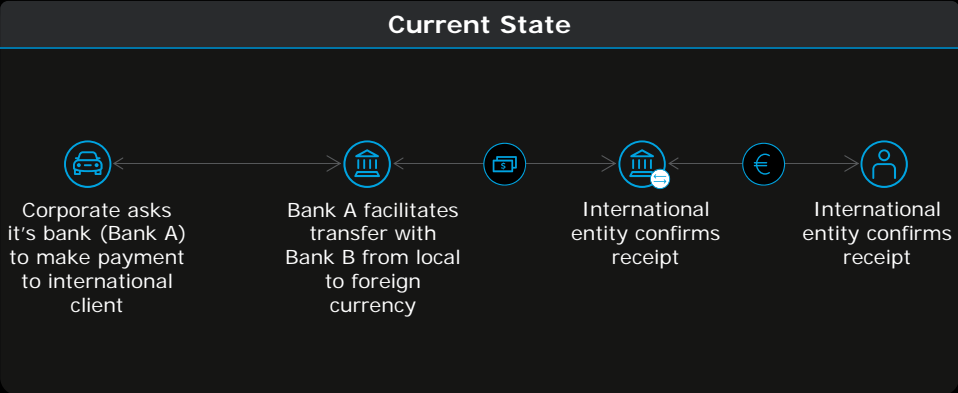
Efficiencies

FX Rate Pathfinding allows the organization to find the optimal FX rate available on network



Audit Trail

Clear audit traceability on distributed ledger allows for traceability of payment from originator to recipient



Illustrative scenario

Blockchain strategic enablers

Payment Initiation

- Corporate identifies recipient information based on recipient's unique address on the blockchain network
- KYC information is stored in a digital identity on the blockchain
- The blockchain payment rail finds the most optimal FX rate available on the network from pre-selected providers
- You can assign different values to the keys, to build approvals, checks, balances into the system

Transaction Execution

- The payment rail shares data (e.g., invoice number, terms) and sender / receiver information between transacting banks to pre-authorize transactions
- Blockchain exchanges payer currency for bitcoin and then exchanges bitcoin for recipient currency
- The payment rail secures the transaction using public-private key cryptography
- Transactions can be executed in real time

Notification & Receipt

- Recipients are notified of the incoming transaction and see as payment is posted to their account
- Transaction and details are recorded immutably to the shared ledger

GL and Transaction Reconciliation tomorrow; blockchain as strategic enabler



Disintermediation

Reduced complexity of IT infrastructure
Improved visibility and access to information



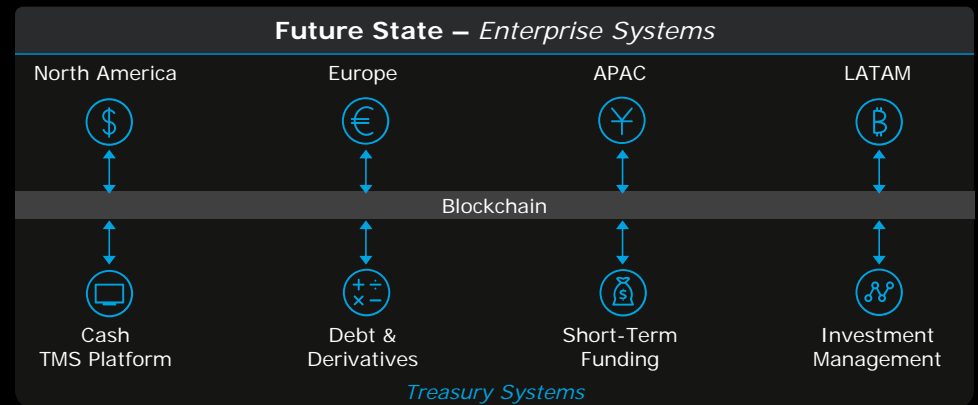
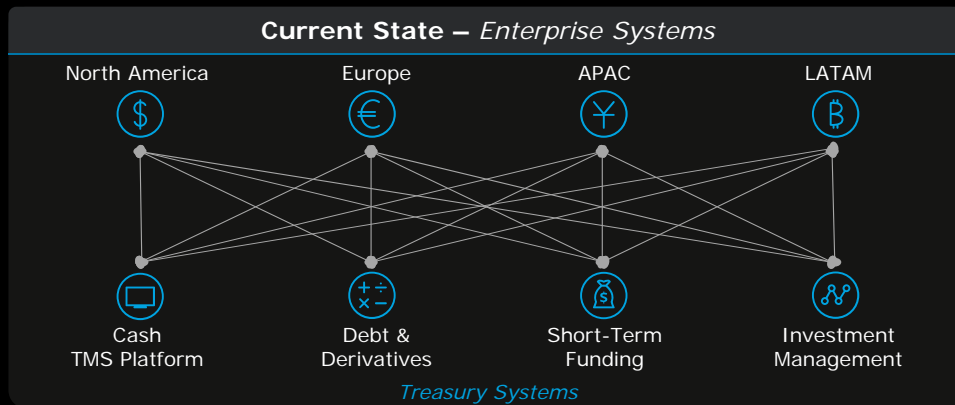
Efficiencies

Distributed ledger enables transparent real-time data
Reduces need for reconciliations and may help reduce disputes



Audit Trail

Enhanced traceability of GL entry participants
Path can be traced from origination of GL entry from sub-ledgers



Illustrative scenario

GL Reconciliation

Blockchain strategic enablers

- Source of truth for GL entries submitted by subsidiary
- Immediate acknowledgement of transactions across the treasury and enterprise platforms
- Reduced number of independent and (and potentially) inaccurate sub-ledger systems.

Transaction Management

- Centralized reporting and transaction monitoring
- Leverage the 'smart contract' concept by holding transaction terms and details within block chain ledger.
- Reduced number of failure points for transaction management.

Interface Simplification

- Establishing a common ledger and shared database across platform simplifies interface structure.
- Reduction in the need for multiple ack/nack file messages, time stamps, etc.
- Reduction in the number of middleware applications supporting different transactions



CONTENTS

Who is Who

Who is Who

Deloitte.

Marco Grossi

Director | Audit & Assurance Blockchain
Deloitte Switzerland

mgrossi@deloitte.ch www.deloitte.ch



This publication has been written in general terms and we recommend that you obtain professional advice before acting or refraining from action on any of the contents of this publication.

Deloitte AG accepts no liability for any loss occasioned to any person acting or refraining from action as a result of any material in this publication. Deloitte AG is an affiliate of Deloitte NWE LLP, a member firm of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"). DTTL and each of its member firms are legally separate and independent entities. DTTL and Deloitte NWE LLP do not provide services to clients. Please see www.deloitte.com/ch/about to learn more about our global network of member firms.

Deloitte AG is an audit firm recognised and supervised by the Federal Audit Oversight Authority (FAOA) and the Swiss Financial Market Supervisory Authority (FINMA). © 2018 Deloitte SA. All rights reserved.