SWIFT Securities Strategy

Update to the XVIIth AECSD International Conference
27-28 October, 2021
Matthieu de Heering, Securities Strategy SWIFT
Agenda

1. Context and trends in capital markets
2. SWIFT Strategy – what’s in it for you?
3. End to End tracking and the Unique Transaction Identifier
4. Analyzing the Impact of Asset Tokenization
Context and trends in capital markets
Overall context: Securities markets, a multi-trillion industry that operates at low profits

Low margins

Despite being a multi-trillion dollar business expected to grow by 40-70%, securities markets operate at an average of 10% margin, continually under pressure.

Cost pressure

As a result, priority projects are related to cutting costs by 2-3% but the industry won’t be able to cost-cut their way to higher profitability. This is where the pressure on new business models and products begin: projects to remove inefficiencies and friction become the most important ones.

Shift in focus

However, until the next phase of regulation comes along, the regulatory crunch is winding down and technology is the new focus. Investment in technology will be driven by (1) a continuous focus on cost reduction and enhanced customer experience as a tactical step and (2) innovation to generate new sources of revenues on the longer run.

Foundation for the future

On top of addressing inefficiencies, market participants will need to prepare for an environment where assets will be tokenized and transactions will move towards instant, with impact on the whole securities processing chain.

Sources: The New Financial Global Capital Markets Growth Index, Accenture, BCG
Settlement Efficiency – costs of non-stp

Trades that “do not touch the sides” are up to 260 times cheaper and offer a significantly better control environment

McKinsey

<table>
<thead>
<tr>
<th>Securities example</th>
<th>Cost per transaction, $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade with all exceptions</td>
<td>51.9</td>
</tr>
<tr>
<td>Manually settled trade</td>
<td>22.8</td>
</tr>
<tr>
<td>Settlement fail repaired</td>
<td>10.5</td>
</tr>
<tr>
<td>1st-/2nd-level break resolved trade</td>
<td>8.5</td>
</tr>
<tr>
<td>Manually pre-matched trade</td>
<td>5.6</td>
</tr>
<tr>
<td>Manually booked trade</td>
<td>4.2</td>
</tr>
<tr>
<td>Cancelled and amended trade</td>
<td>1.3</td>
</tr>
<tr>
<td>Manually matched trade</td>
<td>0.2</td>
</tr>
<tr>
<td>Fully electronic or digital STP trade</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Source: McKinsey Corporate & Investment Banking Practice
Settlement Exceptions

Reasons (per individual transaction)
• Lack of securities
• Matching issues
  • Counterparty instruction not found
  • Settlement location discrepancies
  • Static or commercial data discrepancies
• Others: validation, duplicates, refusals…

Metrics & Measures
• Cost of trade
• Cost of settlement
• Pending & Fail reasons for settlement
• Fails: Proportion of instructions that fail to settle on intended settlement date

Proportions differ due to Market, Asset Class, Volume spikes, & Lifecycle (pre-settlement exceptions vs fails)
Global equities settlement cycles: most large markets at T+2, but things are moving

Most typical settlement cycles around the world | Based on SWIFT traffic
The majority of settlement cycles indicated on the settlement Date in DVP/RVP settlement instruction and confirmation messages

- **US**
  - DTCC: Shorten to T+1 for US equities by mid 2023

- **China**
  - CSDC: To improve to True DVP Model

- **Japan**
  - Project Stella – Phase II (March 2018): real-time settlement based on DLT model with CCP (Token vs Token)

- **Canada**
  - Project Jasper – Phase III (October 2018): real-time settlement, based on DLT model with CCP (Token vs Token)

- **Singapore**
  - Project Ubin - Phase 3 (November 2018): explore DLT solution for T+1 or even real-time

- **Australia**
  - Real-time settlement: Part of ASX’s CHESS replacement project, based on DLT

>80%

- More than 80% of SWIFT securities settlement instruction and confirmation messages for equity markets are with settlement cycle T+2 as of the end of 2020.

- 80% of the global equity markets* (which is the majority of our SWIFT traffic volume) are planning a shorter settlement cycle.

In line with changes towards instant transactions in Payments, it is not a question of ‘whether’ but rather ‘when’ the Securities industry is moving towards T+1 settlement

---

* Calculation methodology:
  - Message type=FIN messages only (Live and delivered), including MT 541:RVP, MT 543:DVP, MT 545:RVP Confirmation, MT 547:DVP Confirmation
  - Asset class =UNIT: Equities only
  - Country = settlement country
  - Settlement date is calculated based on “Expected Settl. Date - Trade Date” in the selected messages types

* Calculated based on the market capitalization value of those stock markets which have initiatives to shorten settlement cycle vs. global market cap.
SWIFT Securities Business today (2020 data)

- The majority of SWIFT traffic: ~63% of total SWIFT daily Average FIN and IA traffic
- Top driver for traffic growth: +10% FIN & InterAct Securities average daily traffic growth
- Large global community: 6,000+ Securities users, including all major (I) CSDs, Asset Managers, Brokers and Custodians
- Contribution to SWIFT FIN Payments traffic: >30%
- Securities contribution to total traffic growth: +77%
- 150+ SMIs, including 93 (I) CSDs and 56 CCPs
SWIFT Securities Strategy – what’s in it for you?
Builds on our foundation as an industry co-operative with unrivalled security standards to innovate rapidly at scale, with the right levels of risk and control.

- Frictionless payments: Instant and frictionless transactions from account to account anywhere in the world, building on and extending gpi
- Smarter securities: Smarter securities services for greater simplicity and efficiency
- Rich data: End-to-end integrity and rich data services enabled by ISO 20022, to help our users innovate and grow
- Open state-of-the-art platform: State-of-the-art digital platform that enables messaging and transaction services with effortless customer experience
<table>
<thead>
<tr>
<th>Industry drivers</th>
<th>Value streams</th>
<th>Target delivery</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>High &amp; rising cost of settlement fails (compounded by inefficient exception management)</td>
<td>Smarter Securities E2E Tracker</td>
<td>Provide full visibility and greater control to participants on their settlement transactions thru the E2E tracker and shared services</td>
<td>MVP 2022</td>
</tr>
<tr>
<td>New communication mechanisms needed</td>
<td>APIs</td>
<td>Develop APIs to 1) interact with the securities monitoring service; 2) respond to market needs for new business flows in line with strategy and product roadmap</td>
<td>API roadmap continuous delivery</td>
</tr>
<tr>
<td>Improve risk &amp; compliance vigilance</td>
<td>KYC for NBFIs &amp; ISIN screening</td>
<td>Enrich KYC Registry and screening utilities with KYC for NBFIs and ISIN screening</td>
<td>2022</td>
</tr>
<tr>
<td>Co-existence of multiple standards</td>
<td>Interoperability</td>
<td>Assess customer appetite for standards interoperability and formulate way forward, promote ISO 20022 data dictionary and backward compatibility</td>
<td>Findings by 12/2021</td>
</tr>
<tr>
<td>Digitisation</td>
<td>Tokenised assets</td>
<td>Assess how to carry and provide simple access to tokenised assets. Keep working with the industry to develop standards. Identify reference data opportunities. Look for use cases on how to bring digital and traditional flows together on SWIFT</td>
<td>Continuous effort</td>
</tr>
</tbody>
</table>
With a mutualised and integrated solution, we allow our customers to focus on growing their business.

Our goal: address 2 main Industry challenges

**PREVENTING EXCEPTIONS AND FAILS**

~30% linked to incorrect/incomplete data  
~50%+ linked to shortage of cash/securities

**FACILITATE HANDLING OF EXCEPTIONS AND FAILS**

Mutualised services to reduce friction, failure, duplication, manual processing and penalties

Enhanced customer experience in exchanging post-trade data

Optimized liquidity and asset across business lines

Integrated business features for seamless processing
End to End tracking and the Unique Transaction Identifier
<table>
<thead>
<tr>
<th>Smarter Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>enabling a harmonized securities lifecycle for the capital market community</strong></td>
</tr>
<tr>
<td><strong>Removing a direct cost</strong></td>
</tr>
<tr>
<td>of USD ~3 billion every year in the securities industry (ESCDA), expected to increase with CSDR penalty scheme</td>
</tr>
<tr>
<td><strong>Preventing &amp; addressing fails</strong></td>
</tr>
<tr>
<td>while removing manual intervention and enhancing end-customer experience</td>
</tr>
<tr>
<td><strong>Delivering visibility</strong></td>
</tr>
<tr>
<td>and greater control on settlement transactions status</td>
</tr>
<tr>
<td><strong>Leveraging a common identifier: the UTI</strong></td>
</tr>
<tr>
<td>on a global scale on a shared service platform</td>
</tr>
<tr>
<td><strong>To bridge existing fragmented solutions</strong></td>
</tr>
<tr>
<td>through a shared solution powered by a neutral entrenched party</td>
</tr>
<tr>
<td><strong>Through an end-to-end two-sided, transaction view</strong></td>
</tr>
<tr>
<td>offering flexible formats, exception management, and integration with case resolution venues</td>
</tr>
</tbody>
</table>
The unique transaction identifier or UTI

UTI

Unique number/reference of a financial transaction to be allocated as agreed among the parties and/or within the initiative or regulatory system under which it is formed.

52 characters, (first 20 for the LEI of the generating body (FI/exchange/service provider)).

Standardized and structure ISO-registered format (ISO 23897:2020)

Already used today for reporting of financial transactions to any authority in any jurisdiction.

Can be carried as a reference across disparate systems and processes

Can be referenced unambiguously by all parties involved or interested in that transaction.
Securities Strategy – Service Overview

Flow

Asset Manager → Global Custodian → Local Custodian → CSD → Local Custodian → Broker

Swift platform

Services

Smarter Securities E2E Tracker

BASE SERVICES

- Early & simultaneous dissemination of the information
- Insights based on settlement data
- Message compare and discrepancy alerting

VALUE-ADDED SERVICES

- Notification service
- Observer Insights
- Message Compare
- Analytics on top of Insights
- Integration with exceptions management & case resolution platforms
- Instructions are populated with updated counterparty/SSIs
- Facilitate fails predictability and penalties estimates
- Check stock availability

Platform interactions

• Instruction
• Status
• Confirmation
Co-creation with a representation of industry experts

36 Members

- BBH
- Blackrock
- BNP Paribas
- CACEIS
- China AMC
- Citibank
- CME
- Credit Suisse
- Crest
- Deutsche Bank
- Deutsche Boerse / Clearstream
- Euroclear SA/NV
- Euronext
- Goldman Sachs
- HKEX
- HSBC Bank
- ICBC
- JP Morgan Chase Bank
- LCH
- Mizuho JP
- Morgan Stanley
- MUFG
- NAB AU
- Northern Trust
- NSD
- PNC
- Santander Securities Services
- Standard Chartered Bank
- SEB
- Societe Generale
- State Street
- Strate SA
- Bank Of New York Mellon
- TSD
- UBS
- Vanguard
Analyzing the Impact of Asset Tokenization
Tokenized assets are too big to ignore by traditional financial market participants

Projected Tokenized market volume until 2027 (in trillion USD by asset class)

Tokenized securities
Research and surveys from institutions such as the World Economic Forum (WEF), Deloitte or McKinsey (see table of sources for more detail) project that up to 10% of the global Gross Domestic Product will be stored and transacted with the help of distributed technology by 2025–27.

Following this methodology, tokenized markets can grow to as big as USD 24 trillion of assets by 2027.

Comparative metrics
Global stock exchange market cap in 2018: USD 68.7 trillion

Sources: Finoa, World Bank, SWIFT
Exploring tokenization
Substantiate the benefits of a mutualized solution through **impact analysis** and co-design initiatives

**Standardisation**
- Create and harmonise **APIs**
- Update **MTs, MXs, and ISO data repository**
- Work with ISO and other standards bodies on token references

**How**: client working groups; internal work

**Deploying updated APIs and messages**
- Bilaterally or hub-to-spoke for existing SWIFT users
- May involve connecting new entities onto SWIFT
- Connectivity TBC (SDK vs. SWIFT infra.re-use)

**How**: work with client initiatives + central harmonization

**Linking to traditional fiat payments**
- Working with existing clients and new tokenization platforms – stop-gap / middle ground?
- Interface between gpi as a platform and external (typically DLT) platform

**How**: continue bespoke client initiatives + follow-up of strategy customer consultations

**Big picture exploration**
- Understand economics, scenarios, timelines
- Understand SWIFT’s role (multi-connector, “the” fabric, …)

**How**: SWIFT institute, Sibos, co-publications, working group participation, pilot/PoC

**Impact analysis** of “a single window for tokenized and traditional assets”
Leverage learnings

Leverage technology builds

CDBC as on-ledger DVP cash leg

Similarities and differences across remaining asset spectrum