Making global settlements work in **Asia**

A ValueExchange factsheet

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Co-written with

Swift

Asia to the world

The unique challenge of accelerating settlements in Asia

In the face of growing settlement pressures in their core markets, Asian back offices face an urgent capacity and risk challenge.

The last 10 years have seen a major escalation in the securities processing efficiency that is required of Asian back offices – largely because of the growth of foreign holdings in China A-shares (and their T+0 settlement cycles). Even this year, Asia's ageing systems and technology has had to absorb a 30-40% increase in the volume of eligible China A-shares on the Stock Connect - driving an increasingly urgent need for substantial transformation across operating processes and technology platforms.

The next 12 months will test the resilience of Asia's platforms even further. Next year's move to T+1 in the US is going to be a landmark shift – in one of Asia's largest investment destinations. Given time zone differences, Asian back offices will be unique in May 2024 in handling the majority of their cross-border volumes on what is effectively a trade-date basis. What was an urgent need risks becoming a tipping point.

This shift will not only add new pressure points on an already challenged infrastructure – it will also add a time criticality for over 90% of the total Asian portfolio. This means risk and increased challenges across the back office – driving Asian investors to urgently seek new ways of creating capacity and reducing risks in the coming 9-12 months.

This ValueExchange factsheet, sponsored by Digital Asset and co-written with Swift, sets out the case for transformation in the Asian back office today in the context of accelerating settlements and time-critical processes. Drawing together insights and statistical data from investors and providers across the world, this document is designed to help firms to make sense of the challenges that surround them - and to present a clear path of action for the months ahead.

Today's Asian back offices face North America **more than they do Asia.**

In the institutional space, 50% of Asian, cross-border settlements are for North American securities – ahead even of the 45% that remains within Asia. **More institutional trades from Asia leave Asia than remain in the region.**

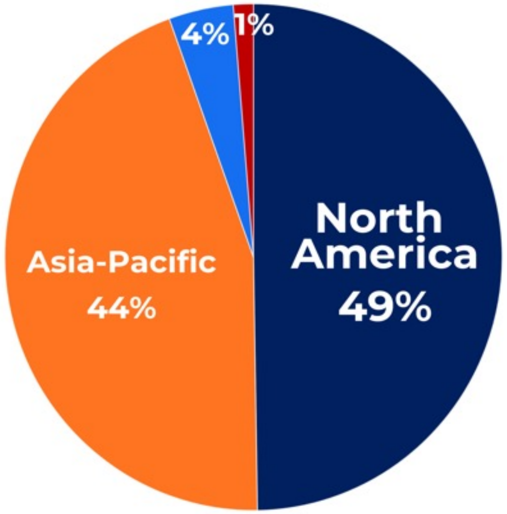
Within the Asian wealth and domestic investor base, 38% of the Asian investor's portfolio leaves Asia today for North America, with 20% of Asian investors expecting their US investments to grow over the coming 12 months (based on ValueExchange research).

This significant concentration of Asian volumes into North America means a **uniquely challenging workload for Asian back offices**. Given the significant time differences (stretching to 13 hours in winter between the US and Hong Kong / Singapore), they are often one day behind on market deadlines and faced with increased urgency as a result around market cut offs and practices.

Navigating a myriad of settlement deadlines across 14 time zones, Asia back offices have long struggled to manage settlement and corporate action issues in a timely way. At best, the processing is spread across six working days each week (including Saturday mornings) as the majority of tasks need to be managed on a trade-date basis (from FX and funding to securities lending and corporate actions). At worst, issue resolution can often stretch well into the Asian night and take up to three days for a single problem to be resolved.

The significant volume of trade flows from Asia to North America stretches the limits of the working week more than any other global investment corridor.

Almost half of Asian institutional investors' trades are destined for North America

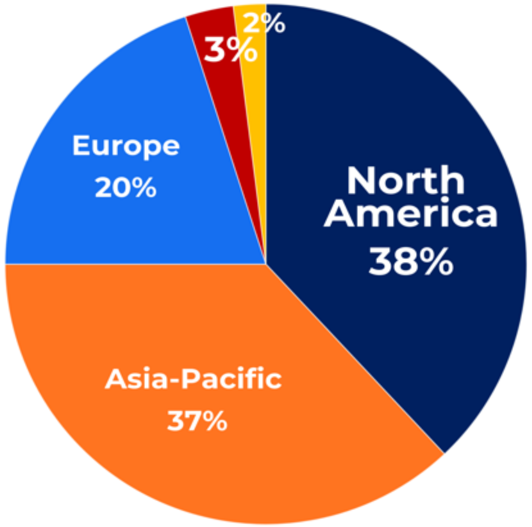


North America · Asia-Pacific · Europe · Others

% distribution of institutional settlement instructions for Asian investors, by settlement region

(Source: Swift)

39% of Asian retail investments are in North American markets



North America · Asia-Pacific · Europe · Latin America · Middle East / Africa

% distribution of institutional settlement instructions for Asian investors, by settlement region

(Source: the ValueExchange)

T+0 settlements in China are **compounding back office challenges**

In parallel, Asian investments into China have sky-rocketed in the last 5 years. Since the inclusion of China A-shares and bonds in the world's leading investment indices, foreign investments into Chinese equities have now surpassed **RMB 2.6 trillion in 2021 (on the mainland China - Hong Kong Stock Connect)**, making it a leading destination for Asian cross-border investments today.

With China A-shares almost unique in the world due to their T+0 settlement cycles, this **significant growth in holdings creates a parallel challenge for Asia's back offices**. Whilst North American trades can take days or weeks to manage, trades on mainland China shares must be completed and settled within less than four hours each day. With no exceptions (given the no-fails rule on China A-shares).

This means a daily sprint to ensure that instructions are communicated (through the complex settlement chain of investors, brokers, custodians and market places); trades funded; settlements managed; and inventories updated – before work on today's trading can close out.

And as volumes of China A-shares have grown, so too has the sprint across Asia's back offices to ensure trade-date execution, clearing, funding and settlement - drawing in capacity and creating elevated levels of operational risk across the region.

MSCI Emerging Market index allocations

Assuming 100% China A shares weighting

(Source: MSCI)

Are Asian back offices ready **to for shorter settlement cycles today?**

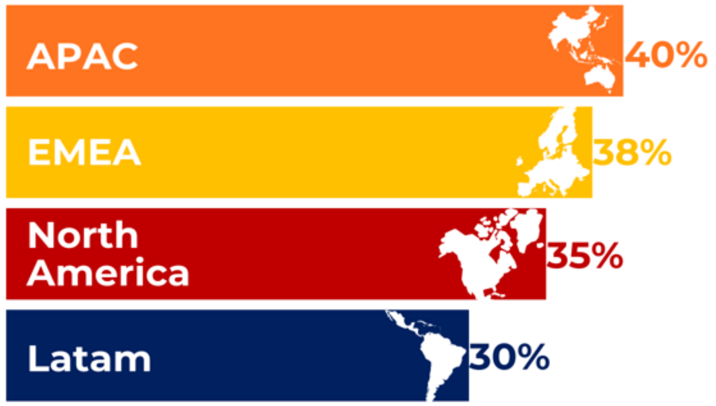
Given the high complexity of these time-critical, global investment flows, the current sophistication of Asian back office systems is surprisingly low today.

40% of Asian back office platforms are older than 10 years, giving Asia the highest levels of legacy technology in the world. This figure rises to over 50% in a number of core areas, such as clearing and margining, meaning that we are using some of our oldest platforms to service some of our most time-critical activities.

Asia also leads in the number of systems that are reaching their end-of-life in the coming three years (16%), particularly in areas such as settlements and corporate action processing.

With older systems and comparatively higher levels of manual processing across the back office (versus other regions), the risks inherent in processing trades for Asian investors are significant today.

Asia's back offices are amongst the oldest in the world

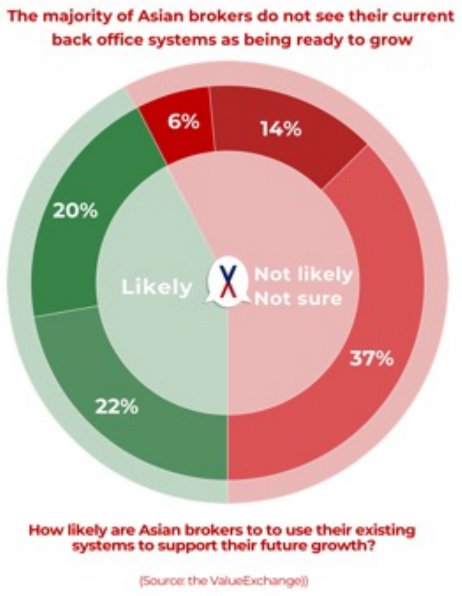


% of back offices systems over 10 years old

(Source: the ValueExchange)

“An HKD1 million loss from an overseas corporate action is not unusual for us”

(Hong Kong Broker)



With large swathes of the Asian economy running on ageing technology, it is not surprising that **58% of Asian brokers believe that their existing back office platforms are not fit for growth** – nor is it a shock to see that 50% of Asian market participants are planning large-scale technology transitions in the next 5 years.

With many Asian back offices relying on systems designed for local markets (and struggling to scale), the opportunity for errors is evident - with many brokers seeing multi-million dollar issues as common and unavoidable occurrences.

That the majority of Asian market participants see their current platforms and processes as sub-standard is a cause for concern. Whilst many would agree on the need for change across the Asian back office, the core question today is how the timing of these transitions can be reconciled against the challenges that lie ahead.

Equally, Asian back offices are running significant risks in their China trading - with **50%** of Stock Connect trades today settling in the last available batch (versus only 10% of trades for Hong Kong stocks).

Based on their ageing systems and processes, they are triggering significant numbers of clerical issues daily – with **43%** of near-misses on the Stock Connect driven by data issues (such as DVP vs RVP settlement, etc.)

They are then leaving the majority of their settlement activities to the last possible moment – **giving themselves insufficient time to manage the issues that their outdated systems are creating.** Asian operations teams are today running the daily risk of costly **(mandatory)** buy-ins and systemic trade failures due to their inability to manage issues to conclusion.

Asian back offices are running on the edge of their capacities today – **running significant risks in their A-shares settlements and facing major accelerations in their North American settlements.** The symptoms of these issues are clear and need addressing if we are to progress into a world of T0 settlements in Asia.

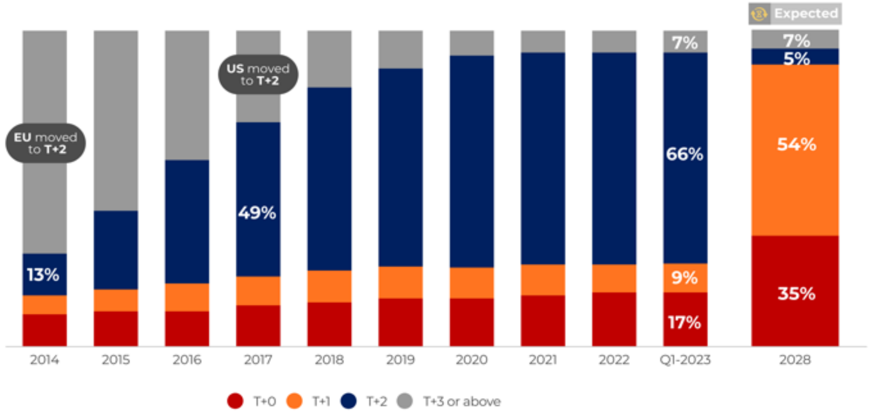
The age and manual nature of Asia's back offices is not only a concern in the context of today's global trade processing. It is about to get a lot worse.

As the world continues to refine its settlement cycles (most notably with the move from T+2 to T+1 settlements in the USA, Canada and Mexico in May 2023), the time and capacity pressures on Asian back offices look set to escalate fast. Trade-date processing will become a critical requirement across the majority of the Asian investor's portfolio - meaning an increasing, daily sprint to manage the entire trading book with minimal risks.

As global markets become faster and more efficient there is an opportunity to seize the moment to modernize back-office processes and be ready for the next wave of digital transformation.

Accelerated settlements: a continuing, global wave

Accelerating Settlements: A continuing journey



% of global settlements broken down by settlement cycle

(Source: SWIFT)

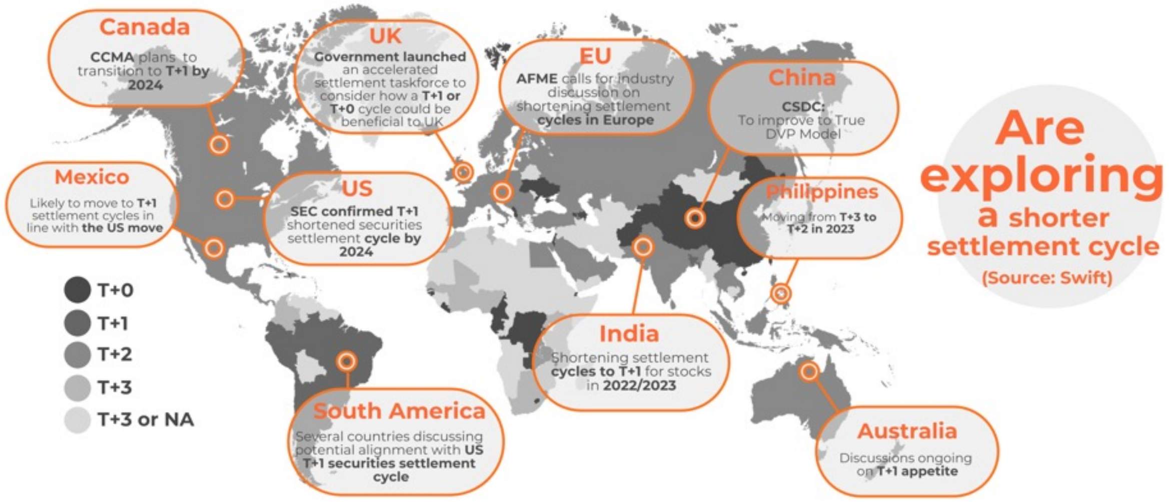
The increasing consensus is that T+1 is an inevitable part of our futures. Whether driven by domestic market considerations or by increasing dislocation risks (as more markets accelerate their settlements), there is a strong expectation that **the majority of the world's equity flows will settle on a T+1 basis in the next ten years.**

With 80% of global equity markets likely to be part of the short term move to T+1 settlements, Asian back offices face an urgent problem.

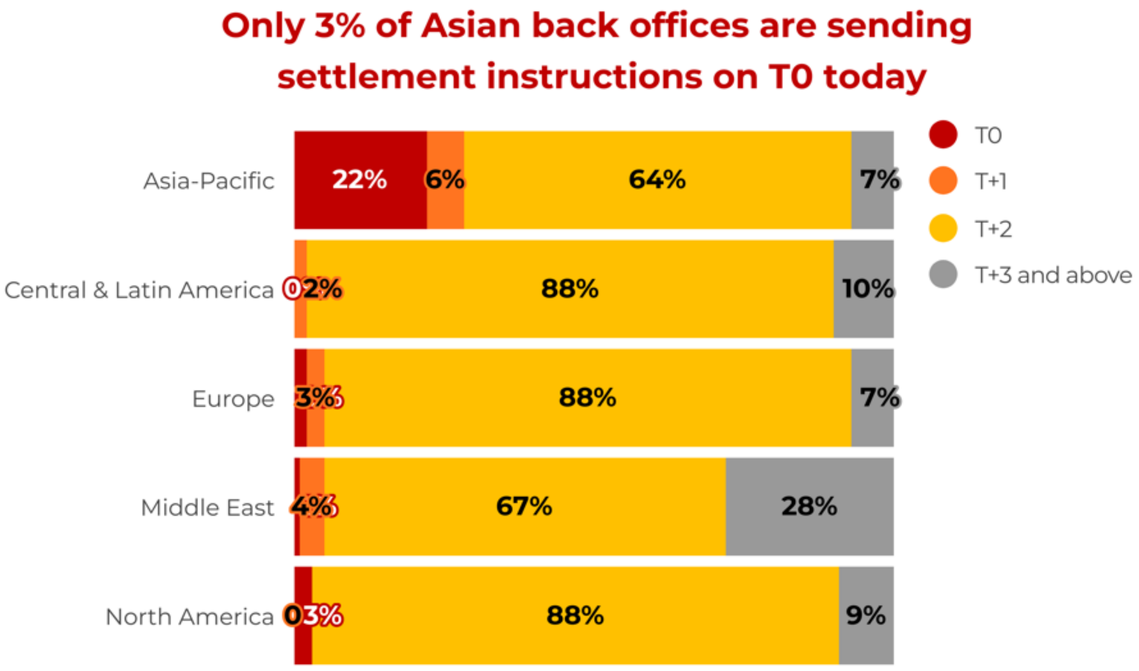
Against a backdrop of highly complex and time-critical processes, **Asian back offices will be unique in May 2024 in handling the majority of their cross-border volumes on what is effectively a trade-date basis.**

In addition to China equities today, Asian back offices will have to contend with trade-date settlement activities in **the USA, Canada and Mexico from 2024** – putting intense pressure on old and over-stretched technologies and processes.

Global equities settlement cycles: Most large markets at T+2, but things are moving



How ready are **Asian back offices** for the race?



APAC customers sending instructions to settle equity in different regions

(Source: the Swift)

This means a big change.

With only 3% of settlement instructions sent by Asian investors to North American markets on a trade-date (or T+1) basis today, **96% of settlement instructions from Asia to the USA and Canada will have to be accelerated within the next nine months.**

In order to avoid significant and systemic trading issues after the transition to T+1 in the US and Canada**, almost all Asian back offices will have to remove at least one-day from their current settlement processes**.

This is an urgent and profound challenge.

What is to be done?

Preparing Asian back offices for landmark change

The acceleration of settlements for Asian investors and the consolidation of almost all activity within the trade-date will stretch back offices across the regions more than ever - creating resourcing and capacity constraints alongside elevated levels of risk.

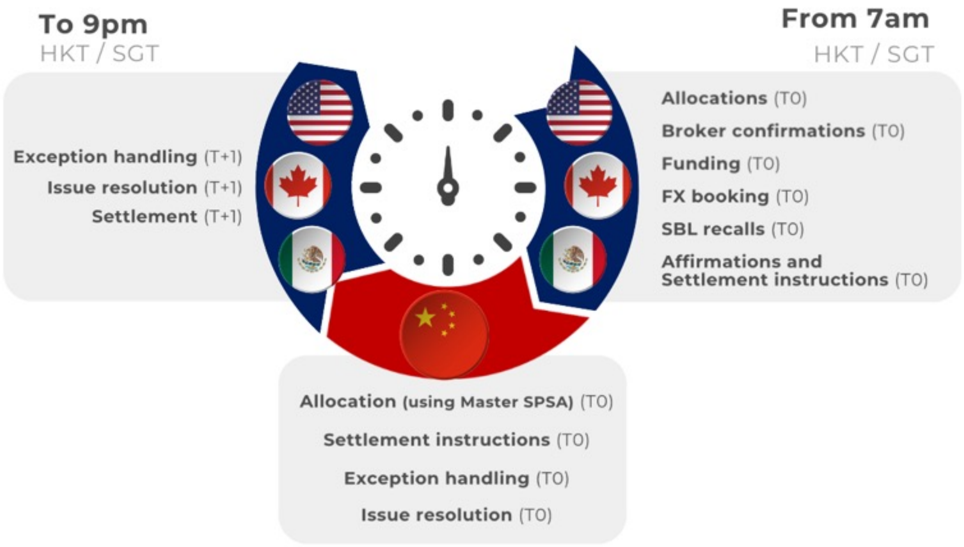
So what is to be done? How can Asian investors avoid an ongoing chain of near-misses and failing trades?

A new day for Asian operations

Almost no back offices in the world today operate the majority of their cross-border flows on a **T0-basis and so Asian operations teams are faced with a unique challenge in accelerating their global settlements.**

In order to successfully manage this transition, **firms have no choice but to be uncompromising in their levels of automation.** Asian investors and brokers need to target all processes that may add unnecessary latency to their settlements. **In doing so, they will add capacity and reduce risk at a time when every minute counts.**

A new, high pressure-day for Asian back offices



This means changes across the Asian organisation – **including:**

Portfolio managers completing their trade allocations
by 7am HKT/SGT

FX desks booking trades
by 9am HKT / SGT

Treasury desks arranging funding
by 9am HKT / SGT

Back offices affirming trades
by 9am HKT / SGT

Securities lending desks triggering
recalls 11.30am HKT / SGT

Back offices resolving all settlement issues
before the end of the Asian day

Process and platform change: the only answer for Asian back offices

These increased pressures will no doubt create significant resource shortages across the Asian investor's organisation – as essential tasks become concentrated and more time-critical than ever. All coming at once, there is a significant degree of change needed across the Asian back office in order to avoid a spike in risk, time-pressures and capacity. The solutions exist to avoid these issues – and to give global investors time to handle the growing risks that T0 settlements entail.

In their China trading, **Asian investors need to remove latency and improving data exchange if they are to minimise or avoid the high volumes of near-misses that are occuring today.**

Faced with an already tight settlement window (of 3.5 hours), **global investors are already critically exposed to the impacts of data quality issues across an already challenging settlement chain**. Within this tight window, settlement instructions need to be passed (in sequence) from investors to their global custodians, to brokers, to local custodians and to the market – with each step taking up valuable time and creating incremental risk of data distortions (e.g. trades being marked as RVP instead of DVP).

In order to remove risk from this process, **settlement instructions have to move from sequential (passed on one-by-one) to synchronous (triggered by one to many)**. In creating a single settlement instruction from a trusted, market source and communicating the instruction to all parties at once, investors can not only remove data distortions but they can get valuable time back – to be used for real issue resolution.

This is critically important not only for daily trade management but also because of the need to identify and manage and contagion risks in the industry. **With over half of near-misses today (i.e. nearly failing trades on the Stock Connect) triggered by systemic issues such as core system outages at one market participant**, all parties need more time than ever to be able to deal with and remediate these issues before they turn into systemic settlement failures across the market.

"The 3.5 hour window of A-share settlements in Hong Kong creates significant market pressures for global investors – whether they have back offices in Asia or not.

As more markets move to a T+0 basis in 2024, the time pressures on Asian back offices will only grow – meaning greater capacity constraints and more frequent near-misses"

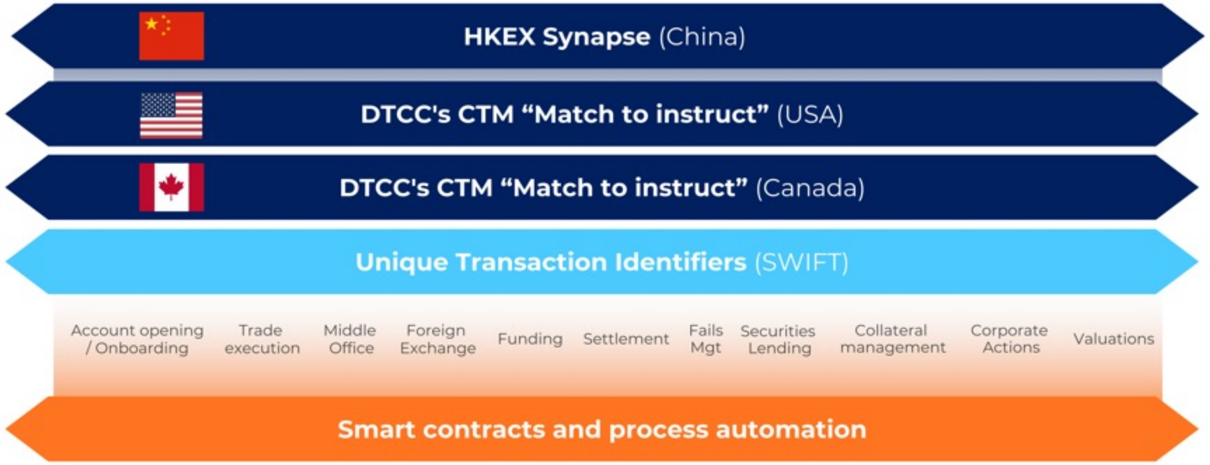
Similar principles of automation and data consolidation apply to North American trades - where Asian back offices need to urgently consider the benefits of **DTCC's ITP CTM "Match to Instruct" platform, backed by the industry standard "Unique Transaction Identifier".** Similarly to HKEX Synapse, these platform can reduce data corruption and improve settlement latency for trading volumes settling in the USA, Canada and elsewhere.

"Improved automation and end-to-end transaction transparency across the securities industry are vital elements in a future with shorter settlement cycles. Adopting a Unique Transaction Identifier (UTI) can also bring the transparency needed to avoid securities settlement fails, increase efficiency, and improve the experience of all parties across the entire trade settlement lifecycle."

(Whikie Liu, Securities Strategy Director, Swift)

Smart contracts and a new target operating model

Enabling global, accelerated settlements from Asia: a new target operating model



"As US equities move towards T+1, pressure on cross-border settlement times is a clear and present problem for financial institutions and market infrastructures. Managing tighter settlement cycles for international firms means using technology that can handle the different workflows in parallel. Distributed ledger technology and smart contract languages are well positioned to meet this urgent need, giving back offices everywhere a system for settling trades that is faster and more cost-effective than what's in place today."

(Kelly Mathieson, Chief Business Development Officer, Digital Asset)

With 90% of trade processing moving to a trade-date basis in Asia, there is simply not enough time for Asia's existing platforms to manage the volume of processing tasks that are required across the China, US, Canadian and Mexican markets. If Asian back offices are to avoid passing a tipping point and experiencing sharp increases in near-misses and failed trades, then intelligent automation an urgent necessity.

Leveraging industry-wide experience and business logic, the Daml library of smart contracts and programming language can provide simple and easily deployed solutions that underpin trade-date processing and remove manual risks across the organisation.

Already a foundation to HKEX Synapse, smart contracts can be deployed to remove critical latency and risk across the global trade cycle. Information flows can be accelerated through near-instant (and parallel) transmission, human touch-points removed and error-queues condensed – giving Asia's back offices the one thing that they need most: more time.