



Information paper

Funds Automation in Asia Pacific

The State of Play and Key Features for Future Growth

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Executive Summary

Driven by the ever present challenge of improving the level of processing automation in the funds industry, this information paper explores the current state of automation in the funds space in Asian markets, and provides a comparison with the more mature European markets. The paper also observes trending developments in the Asian funds space, namely the introduction of domestic funds hubs and collective processing platforms such as the PT Kustodian Sentral Efek Indonesia's (KSEI) S-Invest in Indonesia or The Stock Exchange of Thailand's (SET) funds platform. These platforms have followed the example of already established domestic hubs such as the Korean Securities Depository and ICSDs such as Euroclear Fundsettle or Clearstream Vestima. In addition, accounting for volumes and the importance of cross-border fund flows, ground breaking cross-border legal schemes are being introduced in the Asian region as well, such as the Hong Kong-China Mutual Recognition

scheme, the Asia Regional Funds Passport initiative and the ASEAN Collective Investment Scheme.

Leveraging success stories from counterparts and in conjunction with the introduction of new innovative technology in the financial market space, we highlight fundamental elements that we believe are essential for continued growth and development of the funds industry in the Asian region. These include:

- interoperability of infrastructure and access to markets;
- standardisation and alignment with international standards both for domestic and cross-border flows;
- leveraging and support of regionalisation initiatives and
- leadership and clear guidance on next steps through collaboration

Encompassing these features, efforts need to be well supported by mutual contribution and collaboration

by market regulators and industry players alike. Aside from ensuring a steady pace of progress, joint efforts can help to overcome regressive traits that are still apparent in Asian markets of today, inhibiting the full potential of automated processing.

1 A brief history of funds automation in Europe

Similar to most segments of today's financial markets, the level of automation in the funds space in Europe grew from humble beginnings of heavy reliance on faxes and phone calls to emails and spreadsheets. However, it was proven not to be the most operationally efficient nor scalable in accordance with a company's growth. The demand for improved efficiency in the funds processing and distribution space in Europe became more urgent especially with the introduction of fluid domestic and cross border products such as the Undertaking for Collective Investment in Transferable Securities (UCITS) framework. Additionally, after numerous iterations smoothing out legal, tax and political barriers, the UCITS product was to be made accessible to farther regions beyond the European Union, particularly to the Asia Pacific region.

The success of the UCITS programme is evident with the commendable increase in volumes over the past decade at an average of 5.5 percent growth per annum and in overall net asset value with EUR 8,168 billion in 2015¹. However, this would have never been possible without aggressive effort to automate processing and standardise financial message communications, concurrently with the development of the UCITS product. It involved a collective effort among the financial distribution community to engage in a standardisation and automation journey, moving away from faxes and emails towards straight through processing of ISO 15022 and then ISO 20022. In particular this involved STP for fund subscription and redemption orders and confirmations as well as for switches.

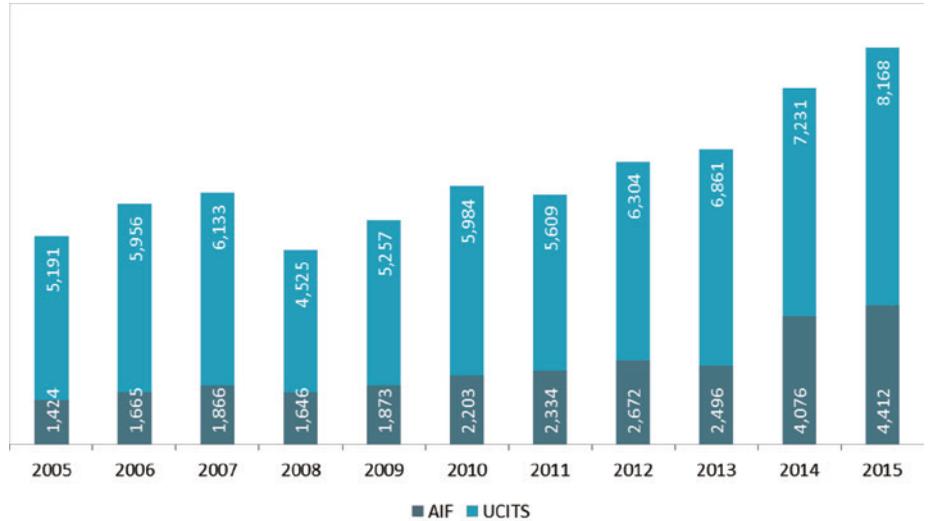


Figure 1: Net Assets of European Investment Funds (EUR Billions)
By end of 2015, investment fund assets in Europe increased by 11.3 percent from 2014 to EUR 12,581 billion
Source: EFAMA, 2016

¹ Trends in the European Investment Funds Industry in the Fourth Quarter of 2015 & Results for the Full Year of 2015, EFAMA, 2016

1 A brief history of funds automation in Europe

In a report by the European Fund and Asset Management Association (EFAMA) published in cooperation with SWIFT, which analysed fund centres in Luxembourg and Ireland for the year 2014-15, it was noted that levels of manual orders have declined at a rate of close to 3 percent per annum to 14.6 percent by end of 2015. This has translated to a positive impact on automation rates of processed orders of cross border funds reaching 85.4 percent in the 4th quarter of 2015, coupled with an increase of automated orders using the ISO messaging format (ISO 15022 or ISO 20022) to more than 50 percent².

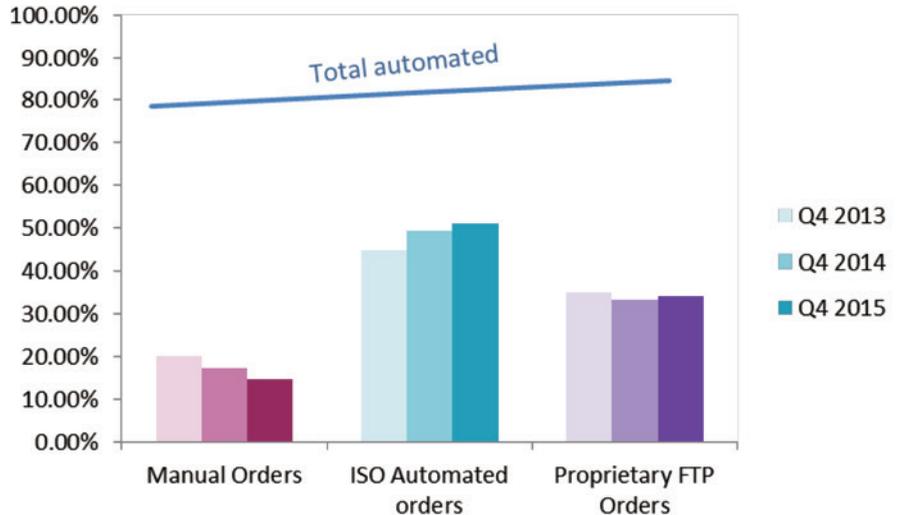


Figure 2: Overview of automation and standardisation of fund orders in Luxembourg and Ireland
Source: EFAMA and SWIFT, 2016

As the European funds industry matured, it opened opportunities for the creation of international funds platforms such as Clearstream’s Vestima and Euroclear’s Fundsettle, enabling access to investment funds across the globe, while being supported by transaction network infrastructures such as SWIFTNet and/or Calastone. This growing popularity of open architecture, which a majority of European platforms adopted/ utilise³, and third-party distribution channel of funds (which links funds players from distributors to transfer agents and custodians) further encourages the need for automation and standardisation across the industry.

Another key contributor to the continuous growth of the European funds industry is strong community collaboration through organised industry groups such as EFAMA and the Securities Markets Practice Group (SMPG). It is through such avenues that the European funds industry was able to come together to discuss and align best business practices and market practices, and to modernise and automate processes to a level which enabled scalability and operational efficiency - factors which consequently led to further business growth.

² Fund Processing Standardisation Annual Report on automation and standardisation of cross-border fund orders in 2015, May 2016, EFAMA and SWIFT

³ A Snapshot of European Platforms, February 2013, Cerulli, Fund Platform Group (FPG) and The Platform

2 State of the union of funds automation in APAC

Markets in the Asian region are poised for growth and have been a keen target for many investment managers. Asia is positioned as offering an environment conducive to international investment. Many countries are becoming increasingly liberal, which along with the introduction of facilitative cross-border fund distribution initiatives, has led to growth in Asian capital markets. Demographic suitability for funds products has improved and as a result of increasing levels of investor education, the number of sophisticated investors is also rising.

The very same features that provide Asia Pacific its investment attractiveness and uniqueness, has led to the current state of the market with fragmented levels of maturity and development of financial markets in the region. This translates into the use of dissimilar standards usage, operational norms, levels of regulatory intervention, economic priorities, to name a few. This inevitably results in a mixed bag of levels of automation in Asia Pacific varying widely from its European counterparts. However, there have been progressive developments towards reducing the levels of manual intervention in the funds space. Based on a series of interviews conducted by SWIFT, a respondent investment manager broadly estimated that its level of automation of communication with funds distributors ranged from 100 percent in the United States, to 90 percent in the United Kingdom, 75 percent in Continental Europe and a mere 50 percent automated in Asia⁴. However, there may be an exception for markets such as Japan, Singapore and China, with likely higher levels of automation within their domestic markets, but which are still laden with legacy manual processes, as with their lesser automated counterparts.

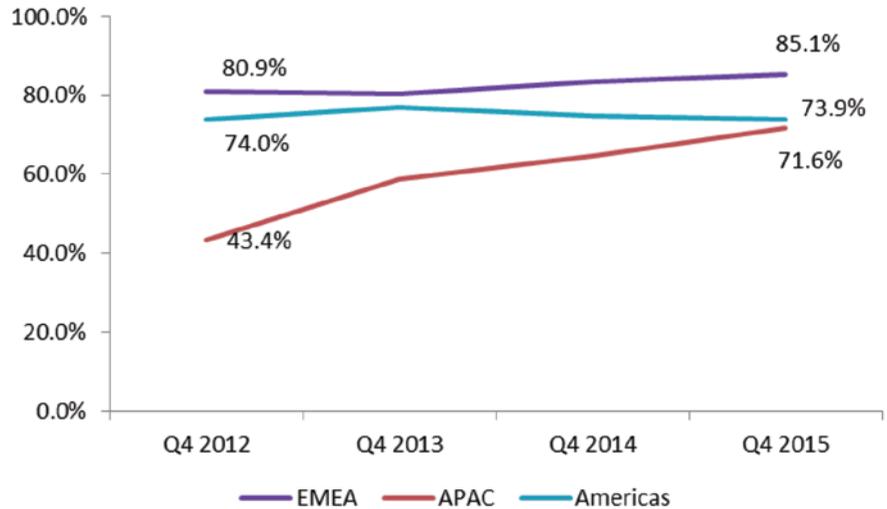


Figure 3: Luxembourg total fund order automation rates, by region
Automation rates have improved tremendously over the years but Asia Pacific is still not at par with their European and Americas counterparts
*Total automation rates is the sum of ISO automation and proprietary formatted FTP rates
Source: EFAMA and SWIFT, 2016

Market players are fully aware of the mutual demand for improved levels of automation and straight-through-processing in the funds space, which are needed to reduce the risk associated with manual processing, operational inefficiencies and distribution reach limitations. Adoption of common or even international standards in the funds space also remains slow but on an upward trend. This upward trend is mainly driven by the influence of larger international players who want to align and better facilitate their connectivity to their offshore funds and global client groups. Nonetheless, the question remains on how best to achieve automated transaction processing without additional cost and operational burden.

Gathering the consensus on community demands and collective solutions, industry groups such as the Asian Funds Automation Consortium (AFAC), have been promoting greater straight-through-processing in the region, particularly for fund order routing in Asian countries. Among their recommendations are for increased levels of standardisations and the use of ISO 20022 message standards for funds processing.

What is frequently discussed and apparent in Asia Pacific, is the evolution of cross-border passporting and mutual recognition regimes, of which we will explore more in later sections of this paper. While cross-border passporting regimes help overcome some regulatory differences and allow for local requirements to prevail where necessary, these frameworks have yet to achieve the same level of presence and reach as the UCITS framework. Further, many prefer local presence and the assumption of understanding local investor requirements, particularly when involving large markets such as China and Indonesia, hence the emergence of more domestic funds platforms.

⁴ "Operational challenges facing investment managers in 2015", 2015, SWIFT

3 New technology and impact on funds industry

It has become the norm to hear of new innovations and technology being introduced into the financial eco-system to increase operational efficiency, reduce the cost of doing business and even improve client experience. In the following section, we explore how some recent technologies involving distributed ledger, cloud repositories and complex robotic algorithms are currently being leveraged to better support the increasing levels of automation being implemented in the funds industry.

Blockchain for Funds

Distributed ledger technology (DLT) has marked its potential presence in every corner of the financial industry and the funds industry is no different. Participants are enthusiastic to investigate how to leverage the network effect that the technology brings with the ambitions for faster transaction settlement, lower operation & transaction cost, transparent & traceable flows and the reliability of the proposed solutions.

It is hoped that blockchain, which is based on DLT, would be able to breakdown the complexities involved in funds processing, particularly for fund subscriptions or redemption. Simply put, it is envisioned that all required information will be made available in the distributed ledger, thus enabling a direct peer to peer transaction. With blockchain and the lesser need for interaction with intermediaries, fund transaction settlement cycles can potentially be reduced from the conventional cut-off +3 days to +2 days or even closer to real time⁵. Equally promising is that envisioned business models could also translate into a reduction in transaction costs given the elimination of incurred processing fees by intermediaries.

However, most of these proposed models function on the assumption that all investors and associated fund managers are fully “digitised” with digital wallets, assets and sometimes even currency. Regulatory and legal requirements aside, it is yet to be clear how the model would function with other permutations of fund transactions such as the use of an omnibus account and whether the speed of availability of fund asset information can match the desired Blockchain ambitions.

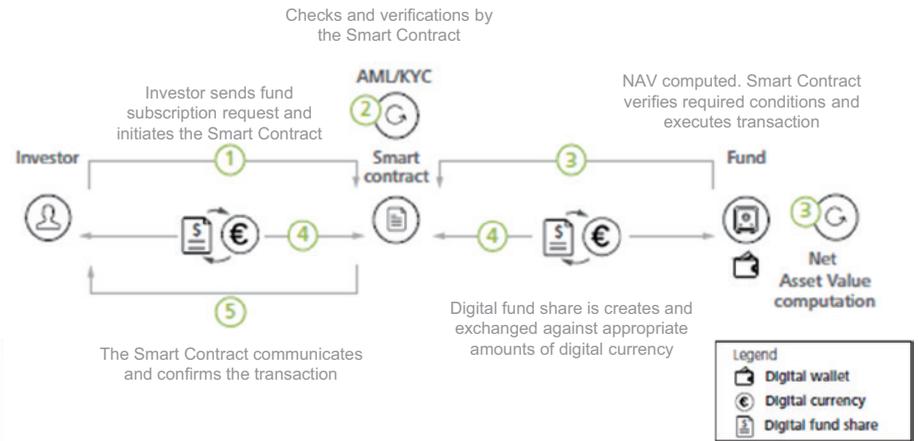


Figure 4: Potential business process for fund subscription using Blockchain and Smart Contracts
Source: Deloitte, 2016

Initial steps are being taken by international funds hubs such as Luxembourg, to test the veracity of such business models. For example, Fundchain, an initiative by 10 key players in the Luxembourg fund industry together with Scorechain, is currently exploring the potential of DLT in the fund space⁶ and how it can pool the benefits of automation and technology to be the game changer for the largely manual processes in the funds industry.

In order to become an industrialised solution however the technology, wherever it will be used, will need to mature further and fulfil critical industry requirements such as appropriate levels of governance, data controls, regulatory compliance, standardisation, security, reliability and scalability, as SWIFT and Accenture highlighted in their April position paper on DLT⁷. The discussion on standardisation is not limited to the use for messaging formats but also refers to the requirement for a sufficient level of business and technological standardisation. This is to not only ensure consistent implementation of the technology but also interoperability with “older” technology stacks⁸.

Know-Your-Client (KYC) Utilities

Industry members ranging from distributors, fund managers and even transfer agents are coming together in search of an efficient fund processing solution that can help accommodate the different requirements to enable seamless compliance. Doing business in an environment where security checks have come under scrutiny and in an ever evolving regulatory environment, anti-money laundering (AML) and know-your-client (KYC) checks in the account opening process is not an easily automated process as one would hope for. The process still requires high levels of manual intervention and often case-by-case handling.

5 “Impact of the Blockchain on fund distribution”, June 2016, Deloitte

6 <https://www.scorechain.com/news/fundchain-initiative-investigating-potential-benefit-of-blockchain>

7 Position paper: SWIFT on distributed ledger technologies, Delivering an industry-standard platform through community collaboration, 2016, SWIFT and Accenture

8 Information paper: Distributed Ledgers, Smart Contracts, Business Standards and ISO 20022, 2016, SWIFT

3 New technology and impact on funds industry

One such way to better manage the KYC screening process in a standardised manner, is through the use of online KYC registries where customer information is pooled into a single location for the mutual utilisation of participating financial institutions. An example of such a data registry is the SWIFT KYC Registry⁹. The KYC Registry is a shared platform developed by SWIFT that enables the management and exchange of KYC data of participating members, in a simple and secure manner without costly and redundant document exchange. SWIFT worked closely with the world's largest international banks to develop the baseline set of documentation which best fit across multiple jurisdictions. Since its initial launch in 2014, more than 3,000 financial institutions now contribute to the KYC Registry to exchange related KYC data, with more than 25 percent coming from the Asia Pacific region.

Understanding that the funds industry experiences similar compliance pains, registries have been expanding their scope to include fund distributors and custodians. For the KYC Registry, similar to their correspondent banking counterparts, fund distributors and custodians are able to design a suitable set of baseline information and data requirements to which participating members can contribute and then exchange across more than 110 countries.

Robo-Advisers

Robo-advisers, an innovative and potentially immediate game changer of automated advice models in the EU and globally, have been garnering a lot of interest particularly given their value proposition of being able to offer high-quality investment advice at a relative low cost. To put this into perspective, compared to the rest of the world, it is expected that 82% of high-net-worth individuals in Asia will conduct most of their wealth management activities through digital channels over the next 5 years¹⁰. Services offered by robo-advisers can range from providing investment advice, to complementary brokerage services and even integrating their services with conventional banking institutions.

Among the drivers to their popularity is their ability to reach extended investor groups through online channels, where these groups may not have easy access to conventional financial advisory channels.

Contributing to the popularity of robo-advice, is the ability to reach extended investor groups, which may not have easy access to conventional financial advisory channels, through online channels. It has also proven to be an attractive channel to tap into younger demographics – millennials, generation X and dependents of baby boomers, who have a more receptive perspective towards emerging technology. Further, it is a window to an estimated more than USD 20 trillion in financial assets¹¹. Robo-advice is also attractive to this investor segment due to lower rates of annual management fees (as little as 0.15 percent per annum of the portfolio size¹²) and lower minimum account entry requirements.

These are among the complementary drivers to increased levels of automation in the funds space, with the ambitions to providing investors an operationally and cost efficient automated investing experience. It is envisaged that this could have a positive multiplier effect on the transaction volumes once cross-market connectivity structures, such as regional cross-border funds recognition arrangements, are put in place with uniform regulations and adequate information exposure to level the playing field.

⁹ <https://www.swift.com/our-solutions/compliance-and-shared-services/financial-crime-compliance/the-kyc-registry>

¹⁰ CapGemini RBC Wealth Management Asia Pacific, June 2015

¹¹ <https://www.bloomberg.com/quicktake/robo-advisers>

¹² "Automatic for the People", September 2016, Funds Global Asia

4 APAC Region Trending With Regional Passports to Domestic Fund Hubs

Adopting a top down approach, some market regulators in the region have taken facilitative steps by introducing cross-border legal schemes to enable the recognition and the ease of cross-border distribution of funds. Cross-border models being implemented range from direct bilateral arrangements, one to multi-lateral and cross multi-lateral arrangements among participating countries. The 3 most prominent schemes that have been launched or are being developed include:

i. The Asia Region Funds Passport (ARFP)

A region-wide initiative to create a regulatory arrangement to facilitate the cross-border offering of eligible collective investment schemes in participating countries. To date, Australia, Japan, Korea, Thailand and New Zealand have signed a Memorandum of Cooperation which came into effect on 30 June 2016. Signing countries have 18 months to implement domestic arrangements and the passporting scheme is expected to commence in 2017, as soon as any 2 countries are ready to implement. Together with the previously mentioned members, the Philippines have also signed a Statement of Understanding, signalling their commitment to join the ARFP when ready.

ii. The Mainland-Hong Kong Mutual Recognition of Funds (MRF)

A scheme jointly launched in July 2015 by the China Securities Regulatory Commission (CSRC) and the Hong Kong Securities and Futures Commission (SFC) for eligible funds from both jurisdictions to be able to be distributed in each other's market through a streamlined vetting process. To operationalise the scheme, the CSRC and the SFC have set out eligibility requirements, application procedures, operational and regulatory requirements specific to the MRF. The first batch of funds under the MRF was authorised in December 2015.

iii. The ASEAN Collective Investment Scheme (ASEAN CIS)

Launched in August 2014, the ASEAN CIS framework is an initiative undertaken by the ASEAN Capital Markets Forum (ACMF) as part of their regional capital market integration plan as endorsed by the ASEAN Finance Ministers. Initial participating members of the framework are Singapore, Malaysia and Thailand. Fund managers from participating countries can directly offer CIS constituted and authorised in their home jurisdiction, to retail investors in other countries participating in the scheme. As of early 2016, 13 funds among participating countries have been recognised to be qualified under the scheme.

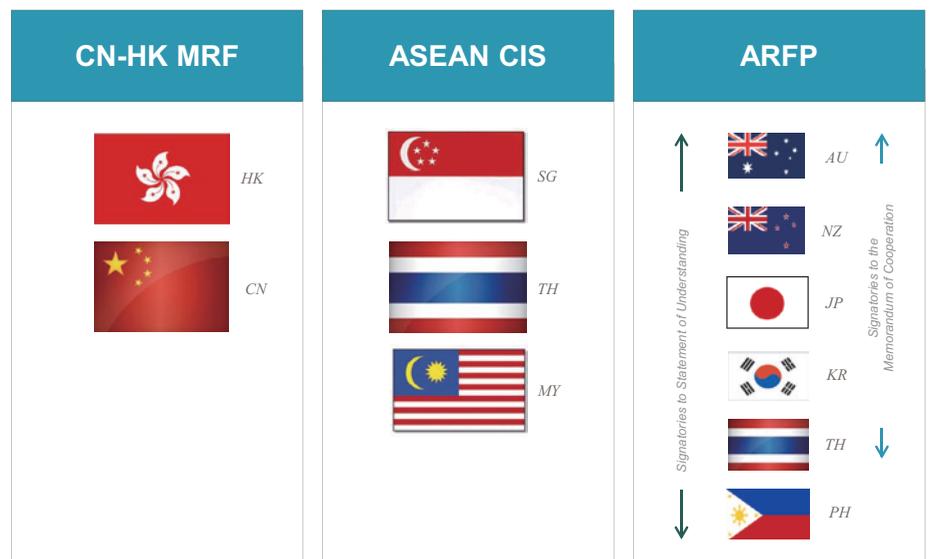


Figure 5: Countries participating in cross-border funds passporting and mutual recognition arrangement in Asia Pacific.

Multi-lateral arrangements tend to allow members

Source: SWIFT 2016

4 APAC Region Trending With Regional Passports to Domestic Fund Hubs

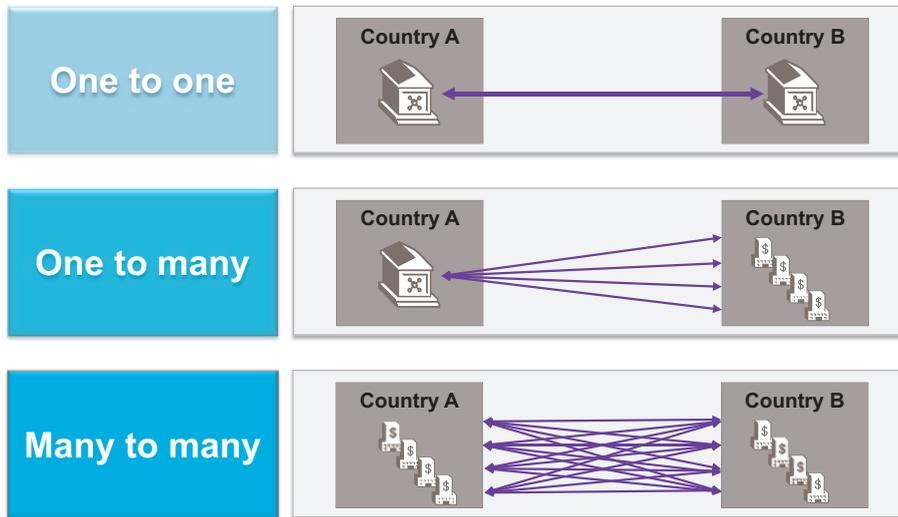


Figure 6: Various cross-border models for funds recognition arrangements Source: SWIFT 2016

Encouraged by their regulators, market infrastructures in the region have taken it a step further towards addressing market demands and urging participants to enhance their levels of automation and standardisation, by developing domestic funds platforms. These include:

- i. China Securities Depository and Clearing Corporation Limited (CSDC) Fund Central Data Exchange Platform
- ii. PT Kustodian Sentral Efek Indonesia's (KSEI) S-Invest fund platform
- iii. The Stock Exchange of Thailand's (SET) FundConnex fund service platform
- iv. Korea Securities Depository's (KSD) FundNet platform
- v. Taiwan Depository & Clearing Corporation (TDCC) Fund Transmission and Payment Service
- vi. Hong Kong Monetary Authority (HKMA) CMU Fund Order Routing and Settlement Service

In the midst of these regional and domestic regimes, funds distributors try to reach a mid-point when strategising their operating model, ranging from operating according to specific country models to selecting the dominant or most international requirements and lay patient until markets achieve those standards.

Not limiting themselves to domestic development, riding on the progress of regional harmonisation efforts, market infrastructure and industry collaboration is progressing through key efforts. The AFSF, grouping 12 CSDs and 5 international experts (including SWIFT, DTCC, Euroclear, Deutsche Bank and Morningstar), is looking at federating offerings by Central Securities Depositories (CSD) in the region, such as funds hub services, around a common set of standards to ease interoperability. The AFSF is of the view that cross-border funds distribution in Asia Pacific will be easier through connections of domestic funds hubs rather than a spaghetti model of many to many type flows. The importance of efforts by the AFSF and its focus on operational efficiency and automation of the funds industry has come to the attention of the Asia-Pacific Financial Forum (APFF). Discussions are underway for the development of a roadmap to improve regional financial market infrastructures' ability to better facilitate investment flows across member countries, through elevated levels of interoperability and connectivity in the securities investment ecosystem.

Aside from enabling exchange of information and experience amongst peers, regional forums also have an important role in highlighting risks and challenges that may

be unique to the region, and on the flipside working together on solutions in building investor confidence in regional markets.

Despite these trends to regionalise and improve operationalisation and distribution of funds, some regressive reflexes still remain, such as:

- Some institutions or domestic infrastructures maintain their proprietary or local standards for the communication of domestic funds distribution. This often leads to requiring message transformation interfaces to be put in place for cross-border communication, which in turn translates to additional technology and operational cost for active market participants who are involved in both domestic and cross-border fund flows.
- Despite a decade long trend of technology refresh programs, some market players and domestic market infrastructures are laden with legacy systems which rely on proprietary domestic standards.
- There is often a misconception that international standards such as ISO 20022 are only used for cross border orders. In fact, ISO 20022 has a message suite for funds transactions suitable for implementation for both domestic and cross-border orders. There is a need for more industry led initiatives or mutual demands to increase the level of automation in the funds industry. This could encourage a consistent implementation via market wide mandates from regulators and market infrastructures.
- Asia Pacific regionalisation initiatives are in place with underlying objectives to encourage enhanced levels of automation and business efficiency, in order to remain competitive against their external counterparts. However, despite facilitative frameworks in place, the private sector frequently maintains a sceptical view of such arrangements with lacklustre responses to the vast investment opportunities.

5 Ingredients For A Vibrant Regional Funds Industry

The key ingredients to a successful and vibrant APAC funds industry through improvements to levels of automation and standardisation are simple but sometimes undermined. Mutual contribution and effort by market regulators and industry players should encompass constant improvements to ensure (i) interoperability of infrastructure and access to markets; (ii) standardisation and alignment with international standards; (iii) the leveraging and support of regionalisation initiatives and (iv) leadership and clear guidance through collaboration.

i. Interoperability of infrastructure and access to market

As volumes for domestic and cross-border funds transactions continue to grow in Asia Pacific, the requirement for higher levels of automation and operational efficiency becomes a necessity. Another aspect to consider in retaining competitive edge, fund players should take into account the interoperability of infrastructure, back office systems, messaging standards and network in facilitating communication flows and automated processing.

Subject to individual entity requirements, options are available and should account for multi-channel infrastructure to facilitate ease of connectivity access across markets and systems. Not to mandate system overhauls in all situations, some entities may be well positioned to reuse their existing infrastructure. For example, entities already connected to the SWIFT network can leverage their SWIFT infrastructure to exchange messages with more than 11,000 banking, securities, market infrastructure and corporate counterparties in 200+ countries and territories.

Reusing or enhancing existing infrastructure to facilitate better market access may be viewed more favourably when budgeting for technology costs and capital investments. This could be timely

especially with the bustle of pre-emptive remedial actions against cyber security threats through efforts to heighten levels of security, reliability and resiliency.

ii. Standardisation and alignment of international standards

Standardisation efforts have always been among the top priorities across segments in the financial industry. Harmonising and aligning the standards used in cross border initiatives are also critical in ensuring high levels of interoperability, straight through processing (STP), operational efficiency and risk management – all value added operational improvements which are building blocks to larger scale initiatives such as shortening of settlement cycles and transaction response times. Alongside this and the appreciation for often unique and complex message formats used in different markets, public and private sector decision makers in the funds industry have been collaborating to evolve communication standards to include the use of internationally recognised, comprehensive and dynamic message formats such as ISO 20022.

In response to community demand for new solutions to cater to the funds industry and their decision to move forward with the adoption of ISO 20022, SWIFT started developmental efforts on a range of ISO 20022 messages for funds flows. For more than a decade, a full range of ISO 20022 messages have been made available for the funds industry to better facilitate efforts to automate and standardise the entire funds transaction lifecycle - funds being amongst the first securities flows to have a full suite of messages. To intensify the progress of adoption, it was agreed between the Funds Migration Advisory Group (FMAG) and SWIFT that the migration from ISO 15022 to ISO 20022 messages for funds transactions on the SWIFT network would be made mandatory. As of end September 2016, a commendable 74 percent of total funds traffic on the SWIFTNet uses ISO 20022 messages¹³.

Aside from being able to standardise other funds related business flows such as pension transfers, one of the attractive points of ISO 20022 is its financial data dictionary. The dictionary can be used as the foundation for an internal data architecture supporting all data exchange requirements, whether internal between systems or external with counterparties. The data architecture should be channel agnostic, and could be used through a messaging system, a file upload mechanism or a Graphic User Interface (GUI). Its imbedded flexibility and the use of the XML syntax enables this international standard to be fine-tuned or extended to best suit a domestic market's specific needs. Unfortunately, there is often a misconception by market participants that the ISO 20022 message format is only suitable for cross-border flows, thus hindering the ability of market participants to harness the true value of the standard for even their domestic flows.

Despite efforts, there is still a lack of harmonised use of standards across the region. For example, within the APAC region, there have been calls to make recognition of key information such as surnames, first names, last names and currencies, easier to process especially given the high risk involved should the information be misinterpreted during cross-border transaction settlement. The use of differing formats and requirements of message variations often leads to market participants having to put in place converters or message translation interfaces to interpret the information coming through from cross-border sources. Even within the SWIFT community, as not all funds users have migrated to ISO 20022, a closely monitored Closed User Group (CUG) has been established to allow ISO 15022 funds messages to be exchanged but for a limited time only.

13 For more information on the Funds Migration Programme, you can refer to <https://www.swift.com/our-solutions/global-financial-messaging/securities-messages/funds-distribution/funds-migration#topic-tabs-menu>

5 Ingredients For A Vibrant Regional Funds Industry



Figure 7: ISO 20022 is a growing preference for cross-border and domestic funds flows including major market infrastructure fund hubs such as Clearstream, Euroclear and Benefit Trust Company.

Source: SWIFT, 2016

iii. Leverage and support regionalisation initiatives

As observed, there are a number of regional cross-border collaborations that are currently in place to further motivate the growth of the funds industry in the region. Catering to the dynamic growth speeds of its respective members, most of these arrangements allow for member countries and markets to participate according to their own best suited timelines and market readiness. In the longer term, it is viewed that the success of these initiatives has not reached its peak with room for further geographical enlargement and market participant inclusion. This provides an opportunity for member countries to reciprocate arrangements in the spirit of regionalisation and in alignment with larger political aspirations. It also forms building blocks for aspirations in developing communal regional infrastructures.

From the perspective of investors, regionalisation initiatives open up options and enable easier access to foreign markets and a variety of investment products. Also for industry participants, lowered entry barriers to numerous markets simultaneously represent an opportunity to establish regional operational hubs to cater to regional transactions. This is in conjunction with means to interoperate across markets and achieve economies of scale in transaction processing. However, this should be coupled with alignment of operational best practices such as standardisation of fees, KYC and AML requirements, use of internal standards and others. In an ideal arrangement, it would translate to an overall reduction in the cost of doing business in the funds industry.

iv. Leadership and clear guidance through collaboration

Success of cross-border initiatives can be measured by the contribution and support from both the public and private sector stakeholders. Active public and private sector engagement helps to overcome harmonisation barriers and to develop and maintain best market practices for both domestic and cross border fund flows. It can also serve as a platform for support for capacity building, research and development for innovative solutions in the funds space. Regionalisation forums such as the AFSF, place high importance in public-private sector engagements to ensure inclusiveness and completeness in coverage when addressing operational challenges faced by the funds industry. Launched in 2015, the AFSF garners inputs from its members, comprised of central securities depositories and global financial service providers, to encourage cooperation and to work towards developing an optimal fund processing model for Asia.

While collaboration facilitates problem solving, initiatives are often challenged when it comes to the stage of industry wide implementation. Structured, stable and influential leadership is required to appropriately guide and inject incentives to continuously drive such initiatives. In many instances, market regulators or front line regulators such as market infrastructures, are looked to, to exert positive regulatory pressure to lead, drive and implement STP and automation initiatives. Referring to the case of Europe, it can be an effective option and may prove to be more time efficient through mandates rather than requiring majority votes when deciding on actions. Further, the government linked relationship of these institutions places them in a strategic position to drive essential investor and industry education, awareness and participation programs.

6 Vision 2025: The Future of Asia Pacific Funds Industry?

The Asia Pacific funds industry is rapidly evolving and remains attractive. The inflow of capital, growing interest in funds for pension schemes, expansion of product suites, operational improvements, shifting demographics and the introduction of innovative technology disrupters into the funds industry are all elements which provide an appealing environment for investors. The industry should be motivated by global pressure and aim high with its ambitions to strive for a funds business environment close to an ideal state. The following is a futurist attempt at describing what the funds space of APAC could look like in 2025, providing the passporting schemes evolve towards more fiscal/tax harmonisation, and providing the ingredients we have described in the previous chapters are part of the recipe.

Economies: The APAC funds industry is the major facilitator of capital funds flows across the region. It becomes one of the key economic contributors to economic growth in the region, leveraging cross border market connectivity and contributing to the deepening of liquidity pools.

Wider Market and Product Access: Harmonised market access within the region and wider access to international funds and products facilitated by cross border recognition or distribution arrangements. Elements such as expanded market access and socio economic drivers further encourage the development of new regionally focused and even open end fund products.

Standardisation: ISO 20022 is the default international message standard used for funds flows. It enables communication of transaction of end to end flows, facilitates automation, helps reduce risk of misinterpretation and reduce error costs resulting from manual intervention. ISO 20022 is also becoming the mandated standard in other business segments such as regulatory reporting and the adoption of this open standard fosters further technical, business and market interoperability.

Automation: Improved levels of automation of funds processing and distribution driven by established domestic funds hubs in the region leads to Asia Pacific becoming one of the most automated regions, on par with Europe and the Americas.

Interoperability: Market infrastructures can take improved operations a step further by interlinking domestic infrastructures to enable the evolution into regional platforms. This leads to the emergence of new cross-border fund centres in APAC.

Regulation: Continued emphasis on investor protection, KYC, AML and risk management. KYC registry utilities have become critical to facilitate compliance and reporting to regulators.

Innovative Investments: Distributed ledger technology has matured and is powering part of the automation and interoperability of the funds industry, complementing pre-existing technologies. This harmonious technological architecture has been made possible by ISO 20022, the business standard that has become the glue between silos formerly existing between different business flows and technology implementations.



Figure 8: The future of the APAC funds landscape
Source: SWIFT, 2016



About SWIFT

SWIFT is a global member-owned cooperative and the world's leading provider of secure financial messaging services.

We provide our community with a platform for messaging and standards for communicating, and we offer products and services to facilitate access and integration, identification, analysis and financial crime compliance.

Our messaging platform, products and services connect more than 11,000 banking and securities organisations, market infrastructures and corporate customers in more than 200 countries and territories, enabling them to communicate securely and exchange standardised financial messages in a reliable way.

As their trusted provider, we facilitate global and local financial flows, support trade and commerce all around the world; we relentlessly pursue operational excellence and continually seek ways to lower costs, reduce risks and eliminate operational inefficiencies.

Headquartered in Belgium, SWIFT's international governance and oversight reinforces the neutral, global character of its cooperative structure. SWIFT's global office network ensures an active presence in all the major financial centres.

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