AFSF
Asia Fund Standardization Forum

ASIA FUND MARKET REPORT

Asia Fund Standardization Forum

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Executive Summary

Fund markets in Asia are characterized by fragmentation which is rooted in substantial economic and cultural differences and heterogeneous country traits. A fragmented market limits investment options for investors in the region, while creating inefficiency and adding costs for fund market players. With the goal of promoting cross-border fund flows and integrating Asia's fund markets, three regional passport initiatives have recently emerged: the ASEAN Collective Investment Scheme (CIS), the Mainland – Hong Kong Mutual Recognition of Funds (MRF), and the Asia Region Funds Passport (ARFP).

Amid the drive for market integration in the Asian region on the back of various passport schemes, there is a lack of discussion to promote back-office standardization for funds. Although legal and regulatory framework and taxation are important issues for consideration, seamless market integration will also require standardization in the areas of back-office fund processing, including but not limited to the efficient delivery of trade orders, settlement and custody of fund assets, and implementation of corporate action. With this understanding, CSDs in the Asian region established the Asia Fund Standardization Forum (AFSF) in November 2015 upon the proposal of the Korea Securities Depository (KSD), aiming to study diverse fund transaction models in Asia to promote the standardization of fund back-office processing.

Acknowledging the need to understand the commonalities and differences between Asia's fund markets before meaningful dialogue on standardization can be advanced, the AFSF conducted a market survey composed of three sections: fund market overview, fund market structure and fund platform. The survey examined the basic elements of the fund markets including regulatory bodies, types of fund products, market participants, etc. It also compared and analyzed CSD services, ranging from depository of funds to automated platform services for subscription, redemption and settlement.

Survey findings illustrated how the fund markets in Asia boast substantial growth potential, but that the fund regulatory environment and market practices show large variances that reflect different economic conditions, level of maturity, or country characteristics. Many CSDs were found to be expanding and evolving their fund services in order to improve the efficiency and effectiveness of fund processing operations. Information exchange and knowledge sharing on the developments of fund services and platforms will expedite preparations needed for an integrated fund market in the Asian region.

Given the vast differences between fund markets, the AFSF's mission of proposing an optimal fund back-office processing model or best practices is not a goal that can be fulfilled overnight. Based on a far-sighted approach, the AFSF will continue to foster collaboration among AFSF members and promote discussion on standardization of fund back-office operations under the overarching theme of shared-growth within Asia's integrated fund market.

Introduction

1. Fund market – where we stand

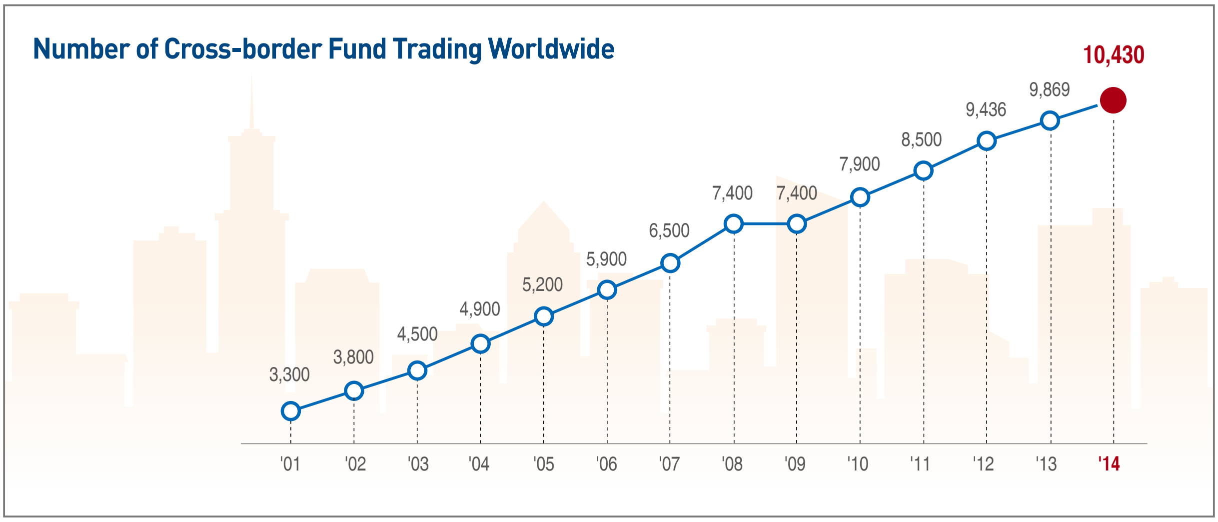
1.1 Asian fund market integration and cross-border transaction

Fund passport schemes are being introduced to boost cross-border fund transactions alongside efforts undertaken to integrate the fragmented Asian fund markets.

Fragmented market and the need for integration Fund markets in Asia are characterized by fragmentation which is rooted in substantial economic and cultural differences and heterogeneous country traits. This is exacerbated by variations in regulations, tax policies, market sophistication, and level of development, which lead to huge differences in product portfolios or investment strategies that are applicable for each market. Such disintegration is a stumbling block to transaction of investment products or other capital flows that transcend borders. In fact, a closer look at the Asian fund market shows that a majority of the economies only have weak levels of foreign investment, sometimes none at all, excluding a few exceptions.

A fragmented market limits investment options for investors in the region, while creating inefficiency and adding costs for fund market players who strive to expand their reach across the domestic arena. The challenge found in Asia stands more pronounced amid the global trend of the number of funds traded across borders increasing, up from 4,500 in 2003 to 10,430 in 2014, a 2.3-fold increase over a decade,[1] while the Asian fund markets remained largely domestic-centric. Although demand for a more closely integrated market exists in the region, the absence of a pan-regional regulatory authority makes bridging the gap a daunting task.

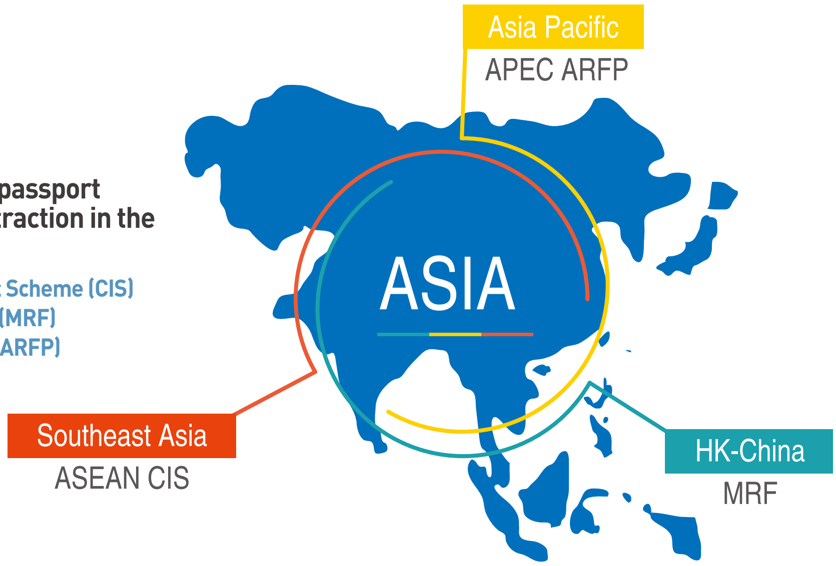
Introduction of fund passports in Asia With the goal of promoting cross-border fund flows and integrating Asia's fund markets, regional passport initiatives have emerged based on increasing awareness of the need for a framework that can cover multiple economies while avoiding cost hikes. If achieved, integration will significantly lower cost,



1) ALFI Annual Report 2015

There are currently three passport initiatives striving to gain traction in the Asian Region:

- ASEAN Collective Investment Scheme (CIS)
- Mutual Recognition of Funds (MRF)
- Asia Region Funds Passport (ARFP)



diversify investor portfolios, and enhance stability. However, although fund passports can open the door for cross-border funds, the challenges that accompany an inherently fragmented market must be overcome before they can become attractive options both for the investor and the fund manager.

Collective Investment Scheme (CIS): The CIS, a fund passport signed by Malaysia, Singapore and Thailand, was launched in August 2014, with an aim to encourage free flow of capital within the ASEAN economies. The scheme is in line with the Capital Markets initiative of the ASEAN Economic Union, which is committed to creating a strong economic bloc in the region and pushing for financial integration.

Mutual Recognition of Funds (MRF): The MRF is a fund recognition scheme that allows eligible funds authorized in China[2] and Hong Kong to be offered to the public in each other's market. Some of the expected benefits include broader cross-border channels, closer bilateral cooperation, foundation for a jointly developed regulatory standard, more diverse choice of fund products to investors, and stronger international competiveness of fund houses in China and Hong Kong.

Asia Region Funds Passport (ARFP): The ARFP is another ambitious initiative, joined by Australia, Japan, Korea, New Zealand, and Thailand as the initial signatories. During the earlier stage, interested economies came together during the APEC (Asia-Pacific Economic Cooperation) finance ministers' meeting in 2013 to sign the Statement of Intent (SoI). As the Memorandum of Cooperation (MoC) came into effect in June 2016, the five economies have 18 months to amend their legal framework in order to prepare for the launch of the ARFP. A Joint Committee has been established to hold working-level discussions, and the first physical meeting will take place during November 2016.

Evolving Role of CSDs

Many fund markets in Asia which have yet to reach maturity and are displaying vibrant growth, are looking into global practices and advanced industry models as they experiment how to shape the direction of development. Taking note of the worldwide shift towards better efficiency and automation, some of the recently built financial infrastructure in Asia has been equipped with systems that show impressive levels of automation, even against global standards. One example of such infrastructure is a centralized fund platform that channels fund business into a single network, cutting redundancy and manual operation while ensuring accuracy, efficiency, and automation. As is the case elsewhere in the world, many central securities depositories (CSDs) are stepping in to offer fund platform services, or seeking to expand their fund services in other ways as a player best-positioned in the market to provide straight-through processing (STP).

2) All the "China" in the report refers to mainland China.

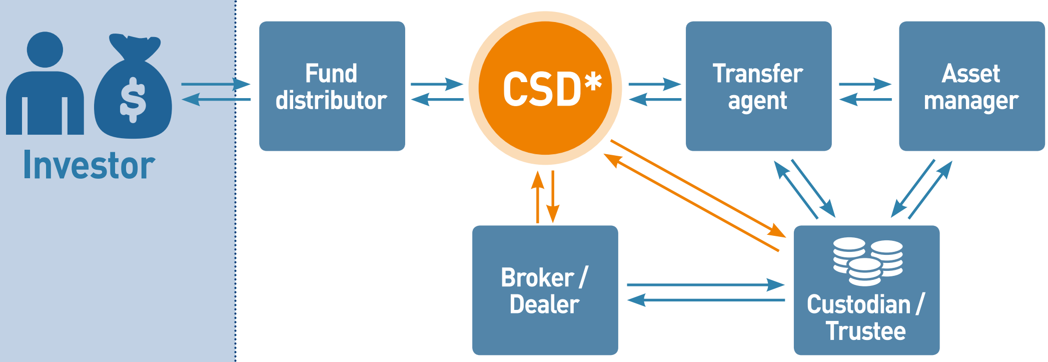
Back-office processing for the fund industry

What is back-office processing?

Simply stated, front-office operations are client-facing business, such as marketing, selling, customer service, etc., whereas back-office operations are all the administrative work that happens behind office doors. A customer wouldn't directly experience what is happening behind doors, but the efficiency and accuracy of back-office operations will ultimately influence the service quality or the service cost that the customer bears with in the end.

Let's look at back-office processing in the context of the fund industry. When an investor goes up to a bank, or any other fund distributor, to buy a fund, and pays money, this initiation of order will trigger a long line of back-office operations. The fund distributor will place the buy order of the fund to the transfer agent, which will make records of the account, and pass on the information to the asset manager. Based on this information, the asset manager will send settlement instructions to the custodian, which will then communicate with the distributor to arrange for payments to be made. As such, back-office operations refer to all the administrative activities that follow an investor's buy/sell order, including order placement/execution, recording of fund balance, settlement, handling of corporate actions, etc. and all the messaging that entails between market players.

General scope of back-office operation for fund transactions



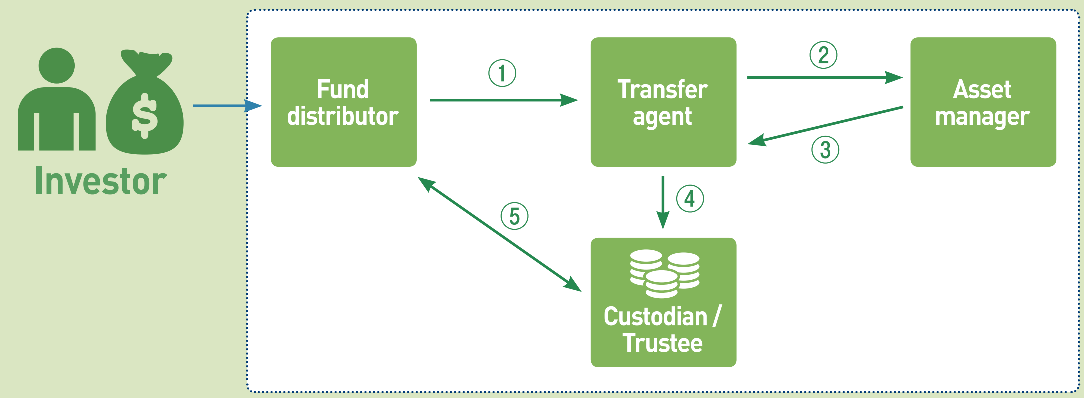
* A CSD fund infrastructure may or may not be utilized for fund back-office operations according to market conditions.

This illustrates the most general and basic dynamic of back-office operations. Different markets may show different variations of processing, as well as involvement of other entities such as the CSD(national or international), fund administrator, local agent, intermediary, etc.

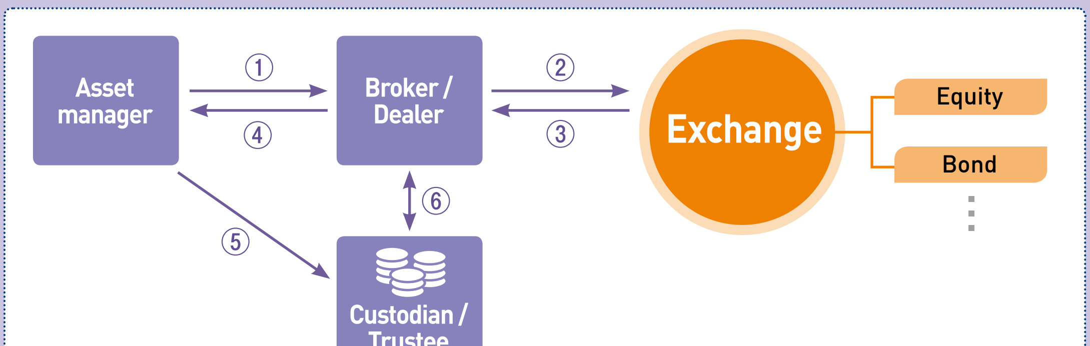
Two types of fund back-office operations

Fund back-office operations can be divided into two parts; the process when an investor initiates an order for fund subscription or redemption, and the process when an asset manager manages the fund property.

Fund subscription and redemption



Post-trade asset management



* The case of investing in exchange-traded securities

Operations for fund subscription or redemption will be triggered when an investor wants to buy or sell an investment fund, which includes order confirmation, settlement, fund NAV calculation, account management, etc. Meanwhile, the post-trade asset management part supports the administrative work between the asset manager, broker, and trustee bank, as the asset manager invests the fund property into other financial instruments such as securities, derivatives, cash deposit or alternative investment products, etc. to increase investment returns.

In the case these market players agree to work under a common market standard, processing will become significantly easier, allowing for the adoption of electronic messaging or automated operations. Without a market standard or centralized system, communication between market players depends on manual methods, which is pervasive across the fund industries in the Asian region.

1.2 Need for back-office standardization and the European case

Standardization of fund back-office operations will greatly boost efficiency and reduce costs, as well as help market players enhance connectivity with other markets based on interoperability.

Lack of discussion on back-office standardization Amid the drive for market integration in the Asian region on the back of various passport schemes, there is a lack of discussion to promote back-office standardization for funds. Taking the ARFP as an example, there are efforts undertaken to designate common regulatory arrangements for passport schemes that cover fund distribution, investment management investor protection, etc. A special taskforce is also leading the discussion on addressing taxation issues, which will undoubtedly be one of the biggest hurdles. However, although legal and regulatory framework and taxation are important issues for consideration, seamless market integration will also require standardization in the areas of back-office fund processing, including but not limited to the efficient delivery of trade orders, settlement and custody of fund assets, and implementation of corporate action.

Different market practices between economies Without a global standard or a regional guideline to conform to, fund industries have developed proprietary back-office operations according to distinct market conditions. There is a mixed practice of using standardized messages, file transfers, emails, and faxes for communication that takes place between fund market players. In addition, each service provider has their own template for fund data, such as the fund code, NAV information, dividend details, etc., which incurs additional burden for asset managers or transfer agents as they deal with multiple interfaces. Non-standardized fund data require re-keying of information, increasing the possibility of errors, while local adoption of certain abbreviations can be a cause for misinterpretation.

Such disparate market practices between markets significantly raise cost and workload, stemming market players to enhance their connectivity with other markets based on interoperability. Delayed processing and higher operational risk may in turn weaken customer service and investor protection. Proposing recommendations for standardized back-office operations will boost efficiency, automation, and immensely help Asia search ways for fund market integration and promote cross-border fund flows.

Implications from UCITS In the case of Europe, the Fund Processing Standardization Group (FPSG) established in 2003 contributed to advancing the Undertakings for Collective Investment in Transferrable Securities (UCITS), duly demonstrating the importance of back-office standardization. Considering the fact that passport schemes in Asia were inspired by UCITS, adopting similar regulations and strategies, Europe's activities for standardization should come as an important lesson for Asia. As the variance of the level of fund market development and market practices between Asian economies is much greater than among European nations, consideration for back-office processing standardization will be essential.

Back-office Processing Standardization for UCITS

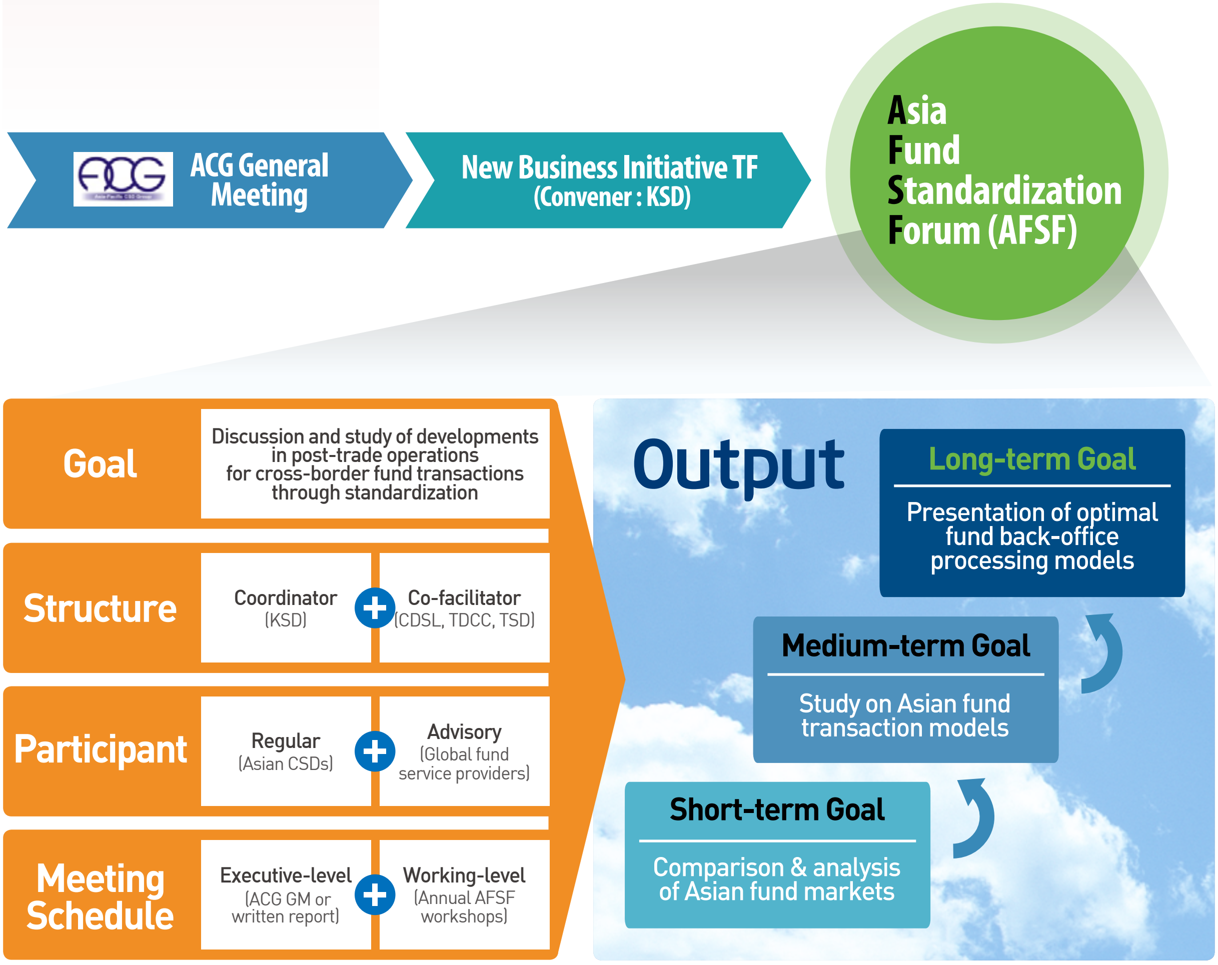
UCITS refers to a set of EU directives that allows open-ended funds to be subject to the same regulation in every member state, with an aim to nurture a single financial market. Initially introduced back in 1985 with limited success, it evolved into UCITS II in 1999, and once again into UCITS III in 2001, which finally saw booming growth. However, amid the growing cross-border transactions, a number of fund processing inefficiencies were identified and the need to develop standard practices was highlighted. To address this issue, the European Fund and Asset Management Association (EFAMA) established the FPSG two years after the introduction of UCITS III.
EFAMA issues various publications to this day that offer guidelines on the standardization of fund processing in Europe, including the joint EFAMA SWIFT Standardization Survey which evaluates the current state of standardization and automation in cross-border fund processing. Also, EFAMA introduced the Fund Processing Passport (FPP), which is a recommendation on all the key operational information that should be provided for investment funds to facilitate trading, such as contract details, subscription/redemption rules, ISIN code, etc. To facilitate access to FPPs and promote distribution on a global basis, the FPP portal was launched in 2010.

2. Background and progress of the AFSF

2.1 Asia Fund Standardization Forum and major activities

The Asia Fund Standardization Forum was established with an aim to promote standardization of fund back-office processing based on the study of diverse fund transaction models in Asia.

Establishment of the AFSF Against the changing landscape of the fund industry, CSDs in the Asian region developed consensus on the importance of fund standardization within the venue of the ACG, or Asia-Pacific CSD Group, an international organization aiming to promote cooperation and mutual assistance among member CSDs. During the 18th ACG General Meeting in 2014, the Korea Securities Depository (KSD) proposed plans for an organization committed to standardizing fund back-office operations, garnering interest and positive response from the participants. After the basic framework on the goal, member, and activities was set, initial signatories came together to officially inaugurate the Asia Fund Standardization Forum (AFSF) during the 19th ACG General Meeting held in November 2015, in Taipei, Taiwan. The AFSF was established as a consultative body aiming to study diverse fund transaction models in Asia to promote the standardization of fund back-office processing.



Regular Participants	Advisory Participants
• Bursa Malaysia Depository Sdn. Bhd. - Malaysia • Central Depository Services (India) Limited - India • Central Securities Depository of Iran - Iran • China Securities Depository & Clearing Corp. - China • Hong Kong Monetary Authority - Hong Kong • Japan Securities Depository Center, Inc. - Japan • Korea Securities Depository - Korea • PT. Kustodian Sentral Efek Indonesia - Indonesia • Singapore Exchange - Singapore • National Securities Depository Limited - India • Taiwan Depository & Clearing Corp. - Taiwan • Thailand Securities Depository - Thailand • Vietnam Securities Depository - Vietnam	• Clearstream • Deutsche Bank • DTCC • Euroclear Bank • Morningstar • SWIFT

* Members are listed in alphabetical order by name

Members and meetings The AFSF is currently composed of 13 Asian CSDs from 12 economies as regular participants and six global fund service providers as advisory participants. Advisory participants include those involved in international CSD (ICSD), custodian, or message platform activities, and their role is to contribute to the knowledge sharing of the AFSF and boost the Forum's international presence. Working-level meetings and executive-level meetings will alternate, gathering relevant representatives among the members.

Goals The short-term goal of the AFSF is to compare and analyze fund markets of each member economy and document the outcomes into a report, thereby setting the foundation for standardizing practices. In the mid-term, the AFSF will focus efforts in studying various fund transaction models in Asia, such as identifying fund data that is needed to standardize fund transaction operations between economies. Eventually, the AFSF hopes to present an optimal fund back-office processing model for the region and make recommendations for best market practices, as its long-term goal.

AFSF Workshops One of the major activities during the period that built up to the AFSF establishment was the one-on-one Fund Platform Workshop held between the CSDs of China, Japan, Korea, and Taiwan in September 2015. Working-level fund practitioners from each CSD shared features of their fund services to deepen understanding about some of the fund platforms in the Asian region. In an effort to further develop such venues for information exchange, the AFSF Knowledge Sharing Workshop was convened during June 2016 in Seoul, Korea, inviting the AFSF members as the first official meeting since the inauguration of the Forum. During the two-day Workshop, participants held presentation sessions covering the diverse range of CSD fund services, fund market developments, newly established fund platforms, among many other insightful topics.

Synergetic effect with the APFF The AFSF also made consistent effort to increase international exposure and network with various fund market entities. For example, the AFSF cooperated with the Asia-Pacific Financial Forum (APFF), a private-public collaboration within Asia's financial industry, in a bid to generate synergetic effect between initiatives that drive financial market integration and cross-border fund flows. With the primary step of including the need for back-office standardization and establishment of the AFSF in the 2016 APFF progress report submitted to APEC financial ministers to enhance awareness among regulators, the AFSF plans to join the APFF platform in the future to contribute to the knowledge exchange on fund services.

On top of these activities, the AFSF conducted a market survey among regular participants which has become the foundation for this report, based on the need to understand the enormous variances that lie between Asia's fund markets before meaningful dialogue on standardization can be advanced.

AFSF 2016 Knowledge Sharing Workshop

I. AFSF Session		Share the progress of AFSF activities and review Asia Fund Market Survey
II. CSD Session	On-shore fund services	Compare and analyze fund platforms for domestic fund markets
	Off-shore fund services	Understand Asian fund market integration and cross-border fund transactions
	New fund platforms	Introduce new fund platforms built in Asia
	CSD service introduction	Introduce diverse fund services of regular participants
III. Advisory Session		Learn from the experience and expertise of advisory participants

2.2 Overview of the Asian fund market survey

A fund market survey was conducted among AFSF members to promote mutual-understanding about each other's fund markets, upon which discussion for standardization can be advanced.

Having a good understanding of the current state is a prerequisite to proposing a new solution that can capture the attention of the stakeholders. With this in mind, a comprehensive fund market survey was distributed to the CSDs who had expressed their intention of joining the AFSF, four months before the official inauguration ceremony. The survey was composed of 29 questionnaires under three sections: fund market overview, fund market structure, and fund platform. All 13 member CSDs provided answers for each item, consulting with regulatory authorities and fund market players when necessary.

Upon collecting the answers and analyzing them, the survey results were shared during the Knowledge Sharing Workshop, and were highly evaluated to enhance mutual understanding about the commonalities and differences of each fund market. Due to the CSDs' varying degrees of access to market data and divergences in the definition or categorization of industry aspects, the survey results inevitably have some limits. However, it is a meaningful endeavor successfully set out to build a common ground of understanding among vastly different markets, upon which further research and studies can be conducted. This survey, as well as similar studies to come, is anticipated to guide the AFSF as it makes steps toward proposing an industry standard for the region.

Contents of the Asian fund market survey

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* number of questions

The answers and implications provided by each of the 13 CSDs form the backbone of this report. The question on asset managers under Section two was omitted due to the sensitivity and confidentiality of business information.

The finalized version of this report will be shared among the members during the 20th ACG General Meeting held during December 2016 in Iran. Afterwards, it will be posted in the ACG official website to grant access to any interested party, and offered to various entities involved in initiatives for fund market integration and cross-border trading, such as governments of fund passport member economies, market players, consultative bodies or organizations, etc.

Fund Market Overview

1. Market regulation

1.1 Regulatory framework

With the importance of robust regulations accentuated in fund markets which are growing increasingly complex, some economies are subject to single regulatory framework while others have in place multiple laws.

Importance of a robust regulatory framework for the fund market The nature of a fund industry is that an asset manager manages a group of assets to generate profits for another person or entity referred to as the beneficiary, which creates a fiduciary relationship. As the entity that generates the return and the entity that enjoys the return are separated, fulfilling the fiduciary duty becomes an important issue in which the asset manager shall act in the best interest of the beneficiary apart from personal gains or goals. Such intrinsic nature necessitates the oversight and intervention of a robust regulatory framework, which aims to keep in check the sound relation between the asset manager and the beneficiary. In particular, regulations are becoming increasingly important in a fund market growing more complex with the emergence of intricate financial instruments and sophisticated techniques.

Single law or multiple laws? As with other industries, some fund markets have in place a single law while some are governed by multiple laws or regulations. The survey result shows no dominance of one model over the other, with the same number of economies located on either side of the table. Malaysia, China, Hong Kong, Taiwan, Thailand, and Vietnam are regulated by a single law, while India, Iran, Japan, Korea, Indonesia, and Singapore are regulated by multiple laws. The choice between the two models is based on different market environments and does not imply that one model is more advanced than the other.

Regulated by a single law

* List by order of CSD name

Economy	Name of law
Malaysia (Bursa Malaysia)	▸ Capital Markets and Services Act 2007
China (CSDC)	▸ Securities Investment Fund Law of the People's Republic of China (2015 Amendment)
Hong Kong (HKMA)	▸ Securities and Futures Ordinance (SFO)
Taiwan (TDCC)	▸ Securities Investment Trust and Consulting Act
Thailand (TSD)	▸ Securities and Exchange Act BE2535
Vietnam (VSD)	▸ Securities Law

Regulated by multiple laws

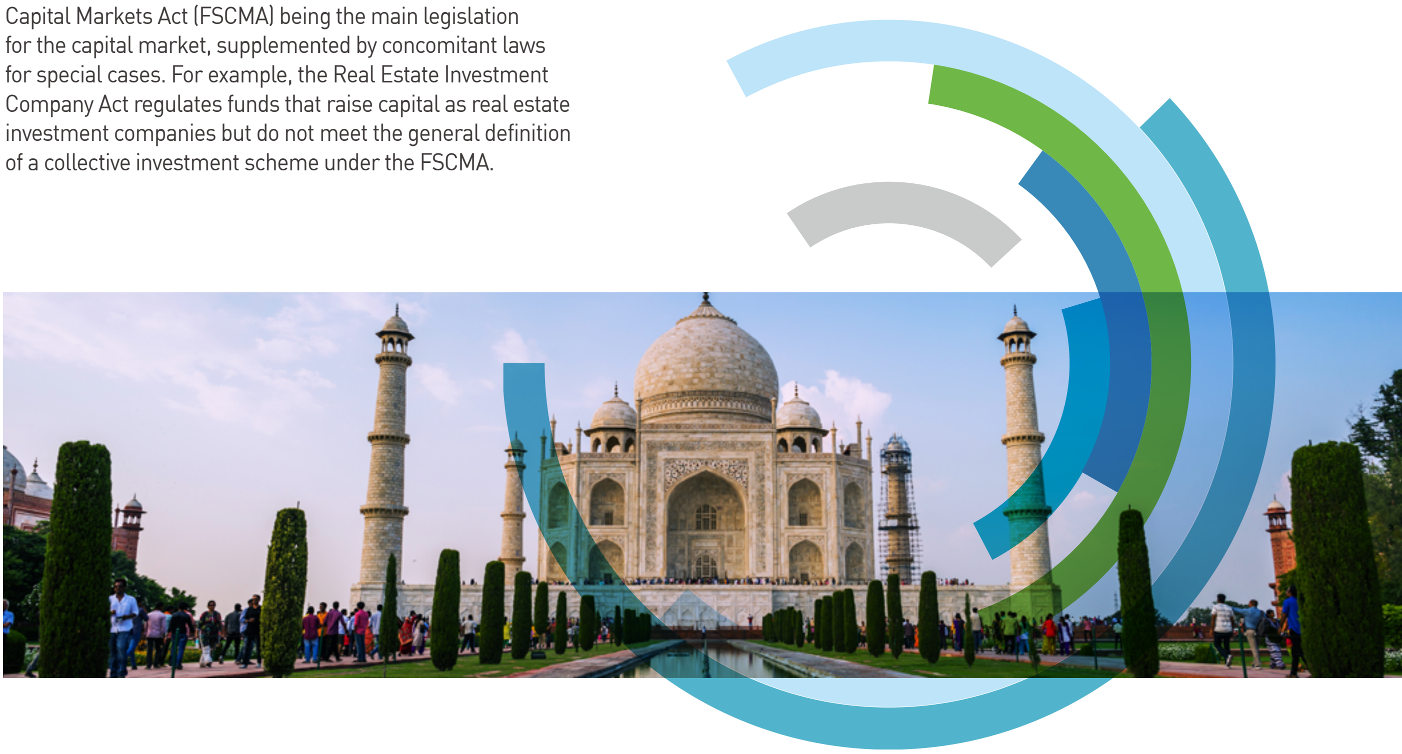
* List by order of CSD name

Economy	Name of law
India (CDSL/NSDL)	▸ SEBI Regulations ▸ Securities Contract (Regulation) Act, etc.
Iran (CSDI)	▸ Securities market Act of Islamic Republic of Iran ▸ The law for development of new financial instruments and institutions, etc.
Japan (JASDEC)	▸ The Law Concerning Securities Investment Trusts and Securities Investment Companies ▸ The Financial Instruments and Exchange Act
Korea (KSD)	▸ Financial Investment Services and Capital Markets Act ▸ Real Estate Investment Company Act, etc.
Indonesia (KSEI)	▸ Laws of Republic of Indonesia No. 8 of 1995 on Capital Market ▸ FSA Rule
Singapore (SGX)	▸ Securities and Futures Act (SFA) ▸ Financial Advisers Act (FAA)

Hong Kong is one example of a market with a single regulatory framework, governed by the Securities and Futures Ordinance (SFO), which consolidated ten ordinances that were previously in effect into one piece of legislation and came into effect in April 2003. The Securities Investment Fund Law of the People's Republic of China is also singly in charge of the Chinese fund market, enacted to regulate securities investment fund activities and protect the lawful rights and interests of investors as stipulated in the general provision of the Act.

Meanwhile, Korea is a market characterized by multiple regulations, with the Financial Investment Services and Capital Markets Act (FSCMA) being the main legislation for the capital market, supplemented by concomitant laws for special cases. For example, the Real Estate Investment Company Act regulates funds that raise capital as real estate investment companies but do not meet the general definition of a collective investment scheme under the FSCMA.

India is another market that adopts a multiple scheme. Although all registered mutual funds are governed by the regulations issued by the Securities and Exchange Board of India (SEBI), the apex regulator of all entities in the Indian capital market, there are also other regulations in place including the Securities Contracts (Regulation) Act. SEBI has the primary authority over all fund market-related laws, processes, and transactions, generally acting in the interest of investor protection. Meanwhile, the Securities Contracts (Regulation) Act has supervisory control over stock exchanges with an aim to prevent undesirable transactions by controlling the business of dealing therein.



1.2 Role of regulatory authorities

Financial regulators strive to promote the integrity of the financial system, financial stability, and investor protection, complemented by activities of self-regulatory organizations.

Regulatory authorities for the fund market Financial regulatory authorities play an important role of regulating and overseeing the financial markets, in order to maintain the integrity of the financial system, enhance financial stability, secure appropriate level of investor protection, and prevent financial crimes among other objectives. For markets with more than one regulator, the common practice is for them to act independently of each other by assuming different duties or responsibilities while striving to accomplish similar goals.

Role of SROs Meanwhile, a self-regulatory organization (SRO) is a non-governmental organization that has the power to create and enforce industry regulations and standards, with a view to protect investors and public interest. As a complementary institution to statutory regulators, SROs are recognized to improve the effectiveness of the market and fill the vacuum in the case of insufficient government oversight. For the majority of cases where an SRO is present, industry associations or federations were found to be assuming the role as an SRO. This may be attributable to the fact that it is convenient and efficient for associations to subject their member companies to self-regulatory operations. However, the definition of SROs is neither clear-cut nor adopted universally, providing room for interpretation regarding their role or scope of activities.

Economy (CSD)	Name of Regulatory Authority	Self-Regulatory Organization
Malaysia (Bursa Malaysia)	▸ Securities Commission Malaysia * Inspection/supervision of market participants of units trust : Federation of Investment Managers Malaysia	▸ Federation of Investment Managers Malaysia
India (CDSL/NSDL)	▸ Securities and Exchange Board of India (SEBI)	-
Iran (CSDI)	▸ Securities and Exchange Organization (SEO)	▸ Securities and Exchange Broker Association ▸ Iran Investment Institutions Association
China (CSDC)	▸ China Securities Regulatory Commission (CSRC)	▸ Asset Management Association of China (AMAC)
Hong Kong (HKMA)	▸ Securities and Futures Commission (SFC) * Inspection/supervision of market participants which are banks : HKMA	-
Japan (JASDEC)	▸ Ministry of Finance Japan, Local Finance Bureau ▸ Financial Services Agency (FSA)	▸ Investment Trust Association, Japan
Korea (KSD)	▸ Financial Services Commission (FSC) ▸ Financial Supervisory Service (FSS)	▸ Korea Financial Investment Association (KOFIA)
Indonesia (KSEI)	▸ The Ministry of Finance and the Central Bank ▸ Financial Services Authority (OJK)	▸ Indonesia Central Securities Depository (KSEI)
Singapore (SGX)	▸ Monetary Authority of Singapore (MAS)	-
Taiwan (TDCC)	▸ Financial Supervisory Commission ▸ Central Bank of the Republic of China	▸ Securities Investment Trust & Consulting Association of The R.O.C (SITCA)
Thailand (TSD)	▸ The Securities and Exchange Commission	-
Vietnam (VSD)	▸ Ministry of Finance ▸ State Securities Commission	-

In the case of Indonesia, three SROs were identified for the capital market, among which the Indonesia Central Securities Depository (KSEI) was responsible for the fund market. The KSEI has received authorization by the Indonesian Financial Services Authority (OJK) to equip the industry with the legal instruments needed to ensure the smoothness of the services that the KSEI is responsible for, in the form of regulations and circular letters. Needless to say, all the self-regulatory operations conducted by the KSEI must be in line with the existing regulations of the OJK.

2. Public offering fund

2.1 Requirements of a public offering fund

While public offering funds are normally subject to stricter regulations largely for the sake of investor protection, the number of solicited investors is used as the threshold in many economies.

Requirements of a public offering fund Fund market regulations cover the entire spectrum of the industry, ranging from product registration, business license, and investment requirements, to investor protection. While it is impossible and to some extent pointless to compare each aspect of the regulations which have developed according to different market conditions, viewing the requirements of a publicly offered fund can offer perspectives into the overall characteristic of market activities.

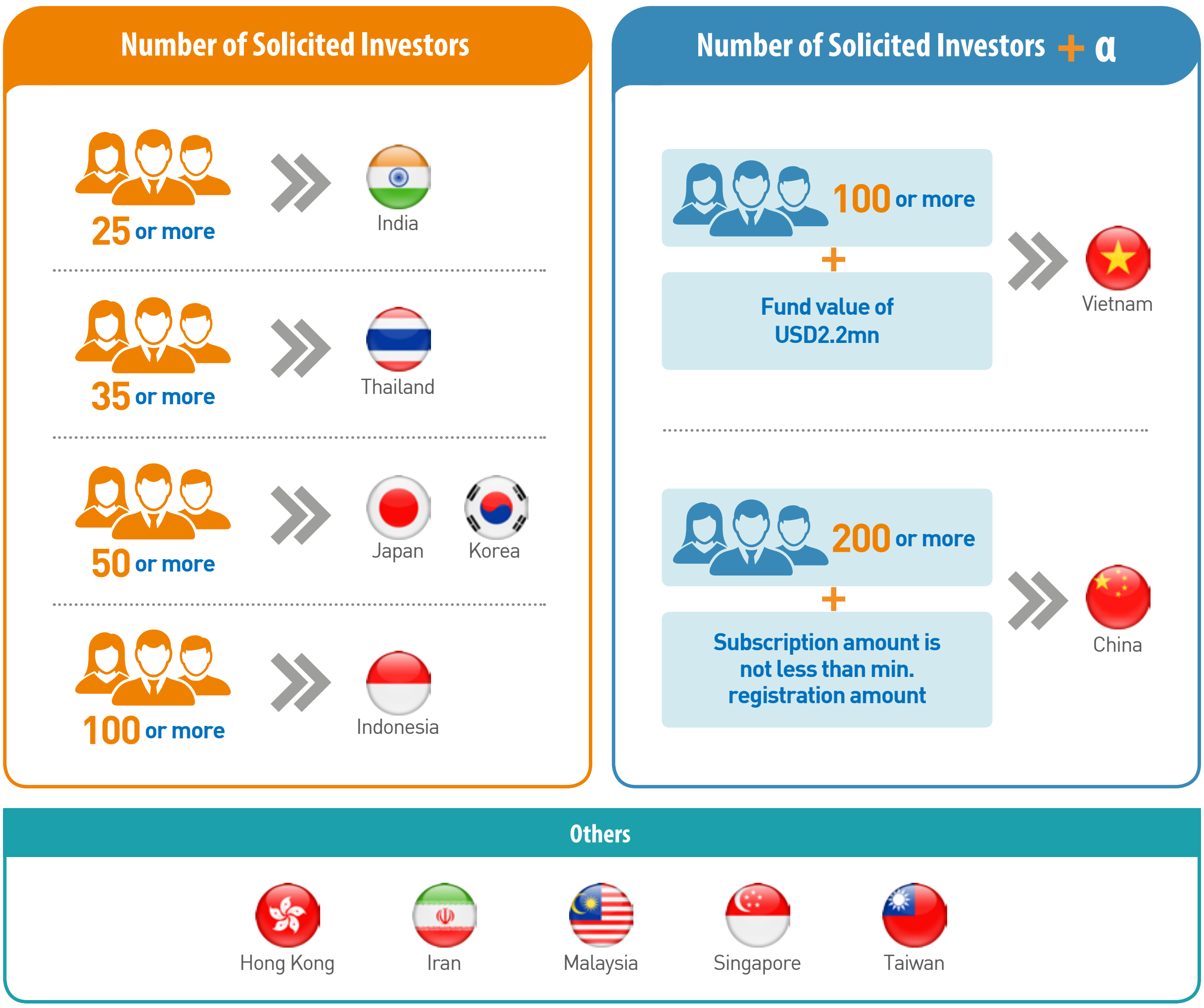
A broad definition of publicly offered funds are those offered to the general public, while privately placed funds are offered to a small number of designated investors. Given this characteristic, public offering funds are normally subject to stricter regulations, largely for the sake of investor protection. In other words, a fund product that an asset manager intends to sell openly to the general public has to meet certain requirements that are more stringent than for funds sold privately to selected investors. India, China, Japan, Korea, Indonesia, and Vietnam were economies that had distinct criteria that funds had to meet in order to qualify as public offering funds.

Economy (CSD)	Criteria	Detailed description
Malaysia (Bursa Malaysia)	Not applicable	▸ No precise rule defining public offering and private placement ▸ However, in relation to offering of securities undertaken as part of a listing scheme, the methods of securities offering chosen by an applicant should enable the applicant to have a broad base of shareholders and comply with the shareholding spread requirement of Bursa Securities
India (CDSL/NSDL)	No. of investors who have been solicited	▸ Soliciting investment in a fund from 25 or more persons
Iran (CSDI)	-	▸ The originators of the funds need to purchase a determined number of units as the preferential units and then offer the other units publicly without any limitations in terms of number of units
China (CSDC)	No. of investors who have been solicited	▸ Soliciting investment in a fund from 200 or more persons ▸ For the subscription amount, no less than minimum registered amount
Hong Kong (HKMA)	Not applicable	▸ No precise rule defining public offering and private placement
Japan (JASDEC)	No. of investors who have been solicited	▸ Soliciting investment in a fund from 50 or more persons (Qualified Institutional Investors are excluded from 50 persons)
Korea (KSD)	No. of investors who have been solicited	▸ Soliciting investment in a fund from 50 or more persons (Qualified Institutional Investors are excluded from 50 persons)
Indonesia (KSEI)	No. of parties offered or purchasing	▸ Offered to more than 100 parties or purchased by more than 50 parties
Singapore (SGX)	Not applicable	▸ Any CIS that is offered should be authorized (for the CISs that are constituted in Singapore) or recognized (for the CISs that are constituted outside Singapore) by the Monetary Authority of Singapore(MAS). But, in certain conditions such as where the offer is made to less than 50 persons, filing with MAS is exempted
Taiwan (TDCC)	No. of investors who have been solicited	▸ Soliciting investment to unspecified persons (ordinary investors)
Thailand (TSD)	No. of investors	▸ Mutual fund for general investors & mutual fund for accredited investors: 35 or more investors
Vietnam (VSD)	No. of investors / Raising fund value	▸ Offered to and purchased by 100 or more investors /At least USD 2.2 mn

Interestingly, Hong Kong was one of the economies where there was no precise rule defining public offering and private placement, albeit having a relatively advanced and fast-growing fund industry. As 'public offering' is not a defined term in the SFO for fund products, there is no threshold of the number of persons or minimum consideration payable to distinguish public offering and private placement. However, all funds offered to public in Hong Kong are subject to authorization by the Securities and Futures Commission (SFC) pursuant to the SFO, which requires a close review of the offering documents before granting authorization. The distinction between whether or not an investment fund is a public fund is based on the rational judgment of the fund houses. In other words, for a fund house to advertise and offer a fund to the public, acquisition of the SFC authorization is a prerequisite. To ensure that investor protection is not overlooked, the SFC has imposed detailed disclosure requirements in the Hand Books for Unit Trusts.

Number of solicited investors as a major threshold Amid varying answers regarding the requirements to qualify as a public fund, the number of solicited investors was found to be used as the main threshold, although the number itself was different between markets. For example, Thailand required solicitation of investment to 35 or more investors while for Japan and Korea, the number grew to 50 or more. As for Vietnam and China, there was another criterion apart from the number of solicited investors that needed to be met for a fund to be offered publicly.

As for Thailand, the requirement involves solicitation to 35 or more investors for both mutual funds for general investors and mutual funds for accredited investors. Mutual fund for general investors refers to a fund which is sold publicly, not limited to any type of investors. Mutual fund for accredited investors refers to a fund which is less restrictive on management policy than that for general investors. These funds can only be sold to non-retail investors and high-net-worth individuals (HNWI). Non-retail investors include institutional investors and large-cap investors, while HNWIs are those with initial subscription amount of no less than THB 500,000 (≒USD 13,800).



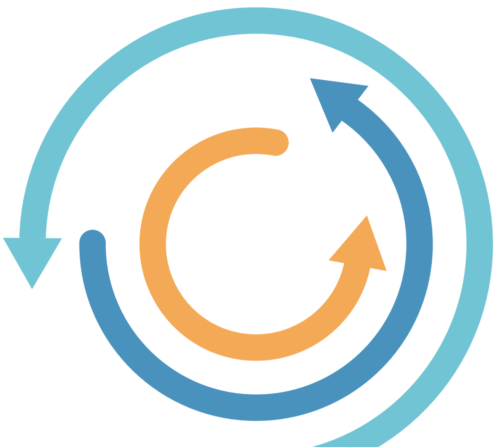
2.2 Registration of public offering funds

The role of regulators in screening and registering public offering funds is essential to ensure investor protection, as long as flexibility of the fund market is not compromised.

Registration of public offering funds Funds distributed in the market must be registered with the regulatory authority before being able to reach investors. In particular, the role of regulators in screening and registering funds designed to be offered to the general public is essential to ensure investor protection and secure market order. However, excessively strict regulations can impede the business of asset managers and dampen growth of the fund market. That said, one of the core goals of regulators will be to maintain the balance between the adequate level of investor protection and flexibility of the market.

For a fund to be offered publicly in Korea, the asset manager has to submit a registration statement to the Financial Services Commission (FSC), where the registration is processed. As long as the fund meets the proper requirements, the registered product will be available on the market within 20 business days after application. The process is similar in Taiwan, where the asset manager must submit registration application files to the Financial Supervisory Commission (FSC), which is usually processed within 30 business days after application. Meanwhile, in the Chinese mainland market, the asset manager must submit registration application files to the China Securities Regulatory Commission (CSRC), which will be reviewed within 6 months after application.

Economy (CSD)	Regulatory authority for registering publicly offered funds
Malaysia (Bursa Malaysia)	▸ Securities Commission Malaysia
India (CDSL/NSDL)	▸ Securities and Exchange Board of India (SEBI)
Iran (CSDI)	▸ Securities and Exchange Organization (SEO)
China (CSDC)	▸ China Securities Regulatory Commission (CSRC)
Hong Kong (HKMA)	▸ Securities and Futures Commission (SFC) * Funds must be authorized by the SFC before they can be offered to the public in Hong Kong.
Japan (JASDEC)	▸ Ministry of Finance Japan, Local Finance Bureau
Korea (KSD)	▸ Financial Services Commission (FSC)
Indonesia (KSEI)	▸ Financial Services Authority (OJK)
Singapore (SGX)	▸ Monetary Authority of Singapore (MAS)
Taiwan (TDCC)	▸ Financial Supervisory Commission ▸ Central Bank of the Republic of China * Business involved in exchange of NTD to foreign currency should get approval from the central bank.
Thailand (TSD)	▸ The Securities and Exchange Commission
Vietnam (VSD)	▸ State Securities Commission



As for Japan, all investment trusts which are established as a public offering fund must be filed to the Kanto Local Financial Bureau. Two different documents are needed for application: one based on the Initial Disclosure Requirement and another based on the Ongoing Disclosure Requirement. The purpose of this filing process is to provide sufficient and adequate information of the investment trust to enable investors to make their own investment decision in an accurate manner. These disclosure documents are available via the Electronic Disclosure for Investors' Network (EDINET) system, and must be copied onto the prospectus of the relevant investment trusts.

3. Legal structure

While un-incorporated funds took up a lion's share compared to investment companies, the proportion between open-end and close-end funds were similar, as were the proportion between funds that were redeemable and funds that were traded on the stock exchange.

An investment fund is a pool of capital gathered from a number of investors with an aim to generate investment profit. Given this broad definition, financial instruments that fall under the category of funds vary immensely in terms of characteristics and legal structures. The naming is also considerably different between economies without a clear standard that is mutually agreed upon. For example, it will be difficult to expect that a concept of mutual fund in the US will be the same as the mutual fund of Indonesia. The term 'closed-end' could refer to funds that issue a fixed amount of units, but in another market used to refer to funds that have a fixed term. Such variance makes the comparison of fund products impossible and can be a source of confusion when two parties communicate with each other.

With this in mind, respondents were asked to list the types of funds in their respective markets and to explain the characteristics according to three standards: 1) open-end or closed-end funds, 2) redeemable or traded on the market and 3) investment company or un-incorporated.

Open-end fund VS **Close-end fund**

There are no restrictions on the amount of shares the fund can issue. When an investor purchases a fund, more shares are simply created.

Funds are launched through an IPO in order to raise money and only issues a fixed amount of shares.

Redeemable VS **Traded on exchange**

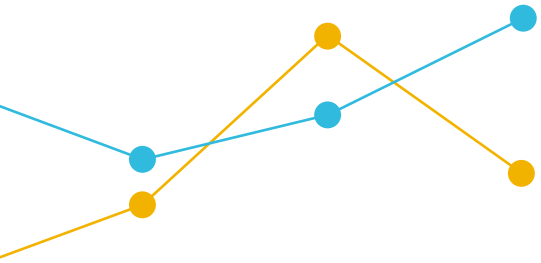
Investors sell fund by requesting the distributor to redeem their fund, and receive the according amount of return which is derived from the fund NAV.

Investors sell fund by trading it on the stock exchange, and wait for a buy order from another investor which will be set based on market price.

Investment company(incorporated) VS **Un-incorporated**

The fund is established in the form of a paper company in order to raise money and manage the pool of assets.

Often known as unit trusts, the fund is not a company, and provides profit straight to the unit owner instead of reinvesting them back into the fund.



According to these standards, a mutual fund commonly found in the US can be explained as an open-end fund that is redeemable, and in the form of an investment company. Meanwhile, a unit trust from Britain will be an open-end fund that is redeemable, but un-incorporated. Examination into Asian markets revealed that whether a fund was open-end or close-end was quite evenly distributed, except Thailand where all mutual funds must register the capital of the fund with the Securities and Exchange Commission, making them close-end funds that issue a designated amount of shares. Thailand also stood out regarding the fact that all funds were investment companies, whereas other markets leaned more towards un-incorporated products like unit trusts.

However, it should be noted that there are definite limits to applying this standard to each market. For example, the investment companies found in the Iranian market are not recognized as fund products in Iran, albeit having similar traits as the definition above. Furthermore, funds in Indonesia and Thailand are neither incorporated nor un-incorporated according to the criteria above, but rather serve as instruments for pooling assets. Referred to as common contractual funds (CCF) (or, collective investment contracts in Indonesia), these funds are incorporated bodies established by an asset management company, under which investors participate pursuant to contractual arrangements as co-owners of the fund.

Although such one-size-fits-all standards are not a perfect way to define the diverse funds that exist, they will provide a meaningful way to compare different markets and to identify the types of funds that are most popular or common in a certain economy.

Economy	Fund name	Open-end vs Close-end	Redeemable vs Traded on exchange	Investment company vs Un-incorporated	Market share	Note
India (CDSL/NSDL)	Open-end mutual fund units	open-end	redeemable	un-incorporated (unit trust)	90%	
	Close-end mutual fund units	close-end	traded on exchange	un-incorporated (unit trust)	10%	
Iran (CSDI)	Mutual fund	open-end	redeemable	un-incorporated	99%	
	ETF	close-end	traded on exchange	un-incorporated	1%	
China (CSDC)	Open-end mutual fund	open-end	redeemable	un-incorporated		
	Close-end mutual fund	close-end	traded on exchange	un-incorporated		
Japan (JASDEC)	Investment trust (contractual-type) *excluding ETF	open-end	redeemable	un-incorporated	85.2%	measured by total net assets including both public offered investment trusts and privately placed investment funds (as of end of Jul. 2016)
	Investment trust (contractual-type) *ETF	close-end (however, additional issue is possible under certain conditions)	traded on exchange	un-incorporated	9.5%	
	Investment corporation	close-end	traded on exchange	investment company	5.4%	
Korea (KSD)	Unit trust	open-end	redeemable	un-incorporated	98%	
	Investment company	close-end	traded on exchange	investment company	2%	
Indonesia (KSEI)	Mutual fund	open-end	redeemable	contractual fund	98.5%	
	ETF	open-end	traded on exchange	contractual fund	1.5%	
Taiwan (TDCC)	Mutual fund	open-end	redeemable	un-incorporated	88.5%	as of Jul. 31, 2016
	Closed-end fund	close-end	traded on exchange	investment company	11.5%	
Thailand (TSD)	Mutual fund	close-end	redeemable	contractual fund	99.08%	
	Unit trust (property fund and REIT)	close-end	traded on exchange	contractual fund	0.85%	
	ETF	close-end	traded on exchange	contractual fund	0.07%	
Vietnam (VSD)	Open-end fund	open-end	redeemable	un-incorporated (unit trust)		
	Close-end fund	close-end	traded on exchange	un-incorporated (unit trust)		

* Note: Whether or not ETFs are considered to be in the scope of fund products differ between economies

4. Deposit & registration of funds

CSDs in China, Japan, Korea, Indonesia, and Taiwan provided full service for fund depository, meaning that all fund units were registered or deposited, while those in Malaysia, India, Singapore, Thailand, and Vietnam provided partial service.

CSD's role in the fund market A central securities depository (CSD) is a financial organization that provides a central point for depositing financial instruments either in certificated or dematerialized form, which allows for the ownership of bonds or shares to be easily transferred through book entry. Although the scope of service or activities of CSDs are different across economies, they are generally defined to provide settlement, book-entry, and central depository services. Among the diverse range of financial instruments serviced by CSDs, funds were found to be one of the products deposited in a majority of CSDs.

Economy	Service coverage	Description
Malaysia (Bursa)	△	▸ Through its central securities depository, Bursa Depository provides custody services for listed funds, ETFs and REITs. It is mandatory for listed issuers to have their securities deposited at Bursa Depository.
India (CDSL/NSDL)	△	▸ In India, the units are electronic and held in the accounts of registrars or TAs. (more than 90%) However, physical unit certificates are also issued on demand, though very less. ▸ Furthermore, depository accounts can be opened and units can be deposited at the CSD. (optional)
China (CSDC)	○	▸ All public offering funds are registered in dematerialized form. (100%)
Japan (JASDEC)	○	▸ All units are registered in dematerialized form (100%), except investment trust funds managed by trustees.
Korea (KSD)	○	▸ Mandatory for deposit by law. All fund units are eligible for deposit at the KSD's FundNet. (100%)
Indonesia (KSEI)	○	▸ Mandatory for deposit by law. All fund units are eligible for deposit at the KSEI's S-INVEST. (100%)
Singapore (SGX)	△	▸ Aside from ETFs, SGX (through its central securities depository, CDP) provides custody services for listed funds such as unit trusts and REITs.
Taiwan (TDCC)	○	▸ All units are registered in dematerialized form. (100%)
Thailand (TSD)	△	▸ Funds traded on the Stock Exchange of Thailand including infrastructure funds and real estate investment trusts are required to be deposited at the TSD.
Vietnam (VSD)	△	▸ VSD provides deposit services for fund certificates of open ended funds.

* Iran (CSDI): For only ETFs as of now, but will expand deposit services for untradeable funds soon
Hong Kong (HKMA): CSD does not provide deposit services

Full fund service China, Japan, Korea, Indonesia, and Taiwan were the five economies where the CSD provided full service for fund depository, meaning that all fund units were registered or deposited either due to market practice, lack of alternatives, or mandatory requirement to do so under the law. In China, Japan, and Taiwan, all fund units are registered in dematerialized forms, and Korea is planning to introduce the service for dematerialized units in 2018. KSEI from Indonesia was the newest to join as a full-service provider, with the launch of the fund platform named S-INVEST in August 2016.

Partial fund service CSDs in Malaysia, India, Singapore, Thailand, and Vietnam provided partial service, where the CSD either service only some types of investment funds, or it is optional for the market players to deposit funds at the CSD. In the case of Malaysia, Bursa's custody services are limited to listed funds, REITS, and closed-end funds, which is similar to the service scope of SGX in Singapore. CSDs in Iran and Hong Kong did not provide depository services for investment funds, although CSDI from Iran indicated future plans to launch service for certain types of funds.

Scope of Depository & Registration Services

Full Service

100% of funds are registered in dematerialized form or depository is mandatory by law

China Indonesia Japan Korea Taiwan

Partial Service

Service is partly provided to funds, or the CSD service is in competition with other players (TA, etc.)

Malaysia India Singapore Thailand Vietnam

Others

Service is not provided, or is being prepared to be launched soon

Hong Kong Iran

5. Statistics

5.1 Fund market size

Amid the dynamic transformation taking place in the region, the fund AUM to GDP ratio demonstrate strong growth potential for Asia's fund markets.

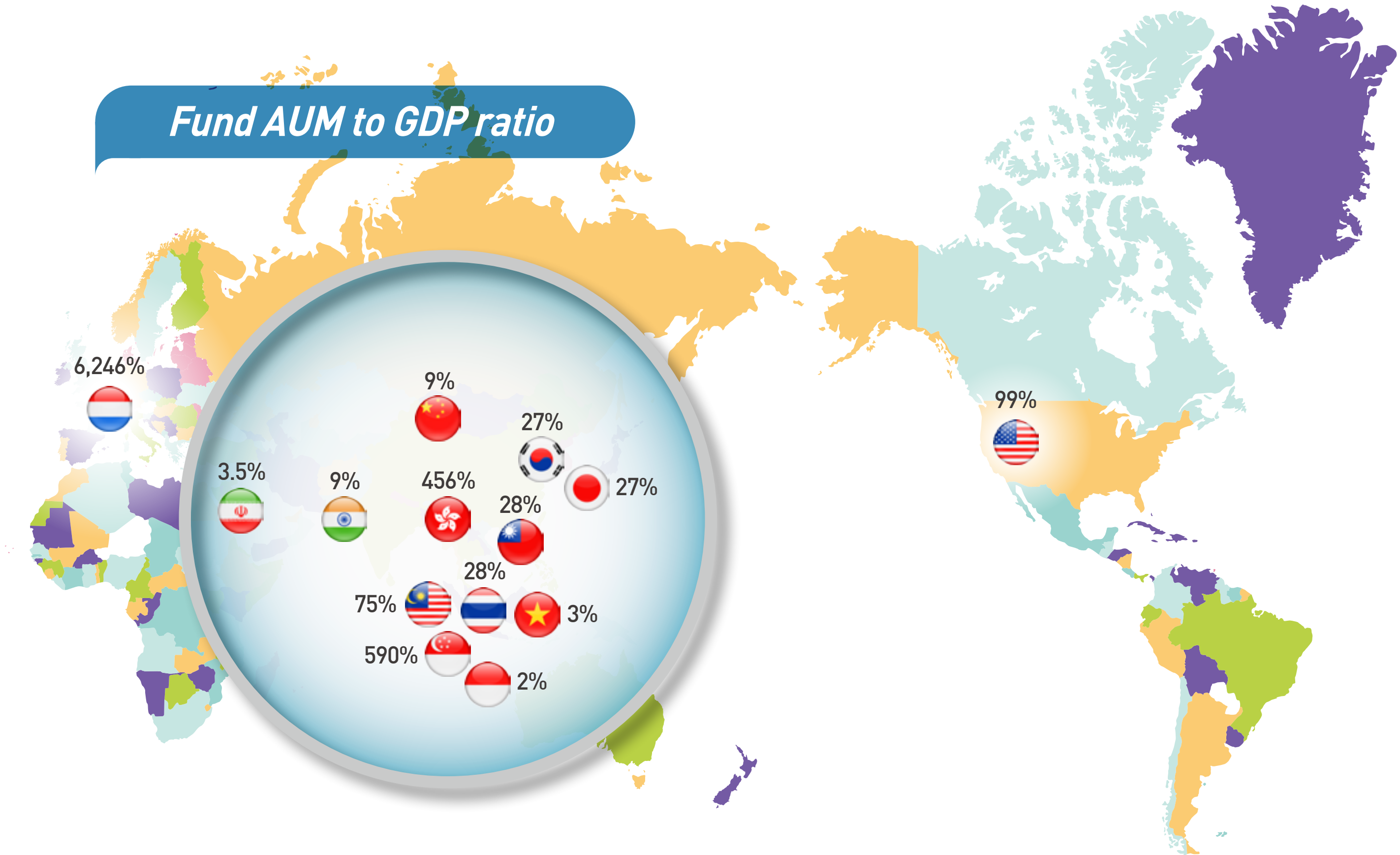
Transformation of the Asian fund market Asia's fund markets are brimming with growth potential amid the dynamic transformation and developments taking place. Burgeoning middle class with more income to spend on investment coupled with the increase of young educated population is one of the key drivers. The number of HNWI in the Asia-Pacific region has risen significantly as well, adding to the anticipation for further growth of Asia's asset management industry. The once nascent financial industries in the region are becoming mature, naturally prompting the advancement of the fund market in their wake. Furthermore, formally reluctant governments are now gradually opening up their markets to foreign fund investment activities, and some are actively attracting international investors and financial institutions in a bid to emerge as a regional hub. All of these factors are adding up to propel vibrant growth for Asia's fund markets.

(Date : End of 2014, unless otherwise specified)

Economy (CSD)	AUM (Asset Under Management) in USD billion	GDP (Gross Domestic Product) in USD billion	Fund AUM to GDP ratio	Number of funds	Note*
Malaysia (Bursa Malaysia)	180	239	75%	612	
India (CDSL/NSDL)	181	2,066	9%	600•	•Approx. number
Iran (CSDI)	14.8	417.3	3.5%	156	•End of 2015
China (CSDC)	897	10,380	9%	1,897•	•Public offering funds
Hong Kong* (HKMA)	1,322	290	456%	2,045•	•End of Mar. 2015
Japan (JASDEC)	1,307•	4,769	27%	9,149•	•End of Mar. 2015
Korea (KSD)	377	1,378	27%	12,729	•End of 2015
Indonesia (KSEI)	20	889	2%	1,032•	•End of 2015 , including ETFs
Singapore* (SGX)	1,780	302	590%	N/A	
Taiwan* (TDCC)	149	529	28%	1,671	
Thailand (TSD)	103	367	28%	1,584	
Vietnam (VSD)	4.95	184	3%	22	

* AUM data were drawn for both locally- and foreign- domiciled funds sold in home economies.

Fund AUM to GDP ratio



Massive growth potential of fund AUM The strong growth potential of the region is evident upon close examination of the asset under management (AUM) and GDP of each economy. Excluding Hong Kong and Singapore, the two economies with presence as regional financial centers, the fund AUM to GDP ratio of most economies were modest at best, signaling large room for further growth. These numbers can be compared to 99% for the United States and 6,246% for Luxembourg.[3] India, China, Indonesia, and Vietnam showed one-digit figures, which can be translated into huge growth potential and the need to further bolster the asset management industry.

The number of funds did not always grow proportionately to the size of AUM. For example, although the number of funds in the Taiwanese market was more than double that of India, the Indian market had comparatively higher AUM. Korea topped the list in terms of the number of funds, but the size of AUM was only about one quarter of the Japanese market. For markets with a large number of funds but relatively smaller AUM, it can be inferred that the size of each fund will be small. This is indeed the case in Korea and the Korea government is currently pushing to abolish small-sized funds as one of its initiatives to nurture the fund industry. In fact, the number of small funds with an AUM of less than KRW 5bn (≒USD 4.4mn) has fallen by 521 over a period of one year, to record 294 as of July 2016.[4]

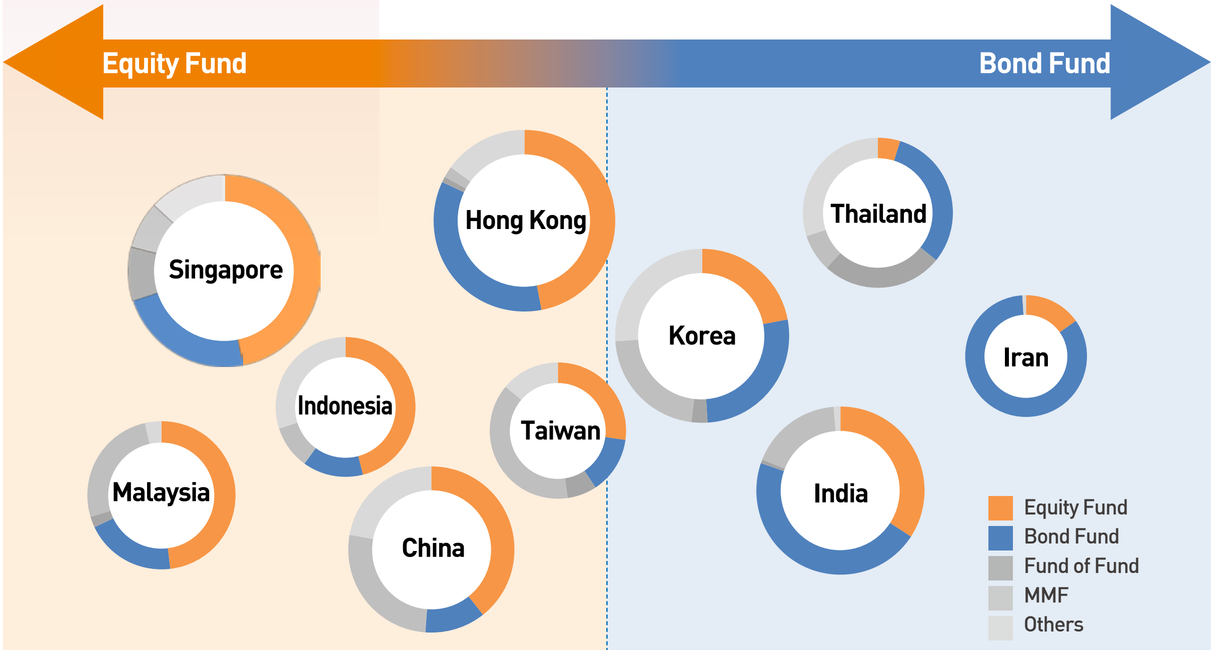
3) Investment Company Institute & The World Bank
4) Press release (Jul. 2016) of the Financial Services Commission

5.2 Fund type

Economies were spread out among different fund types, with some showing dominance of equity funds and others leaning towards bond funds.

Fund classification Funds can be classified according to where the primary investment lies: equity fund, bond fund, money market fund, and fund of funds. Asset allocation into these different types of funds will take into consideration various aspects including the investment objectives, expected rate of return, or level of risk. Fund of funds can be also seen as an investment strategy, aiming to diversify risks by wrapping a variety of funds into one fund.

Among the ten economies with the relevant data identified, Malaysia, Singapore, Hong Kong, Indonesia, China, and Taiwan leaned towards equity fund, with Malaysia portraying the largest share of 48.1%. The rest had a bigger portion of bond funds, with the Iran showing the strongest dominance of 83.8%, followed by India, Thailand and Korea.



* Information on fund type not specified : Japan, Vietnam

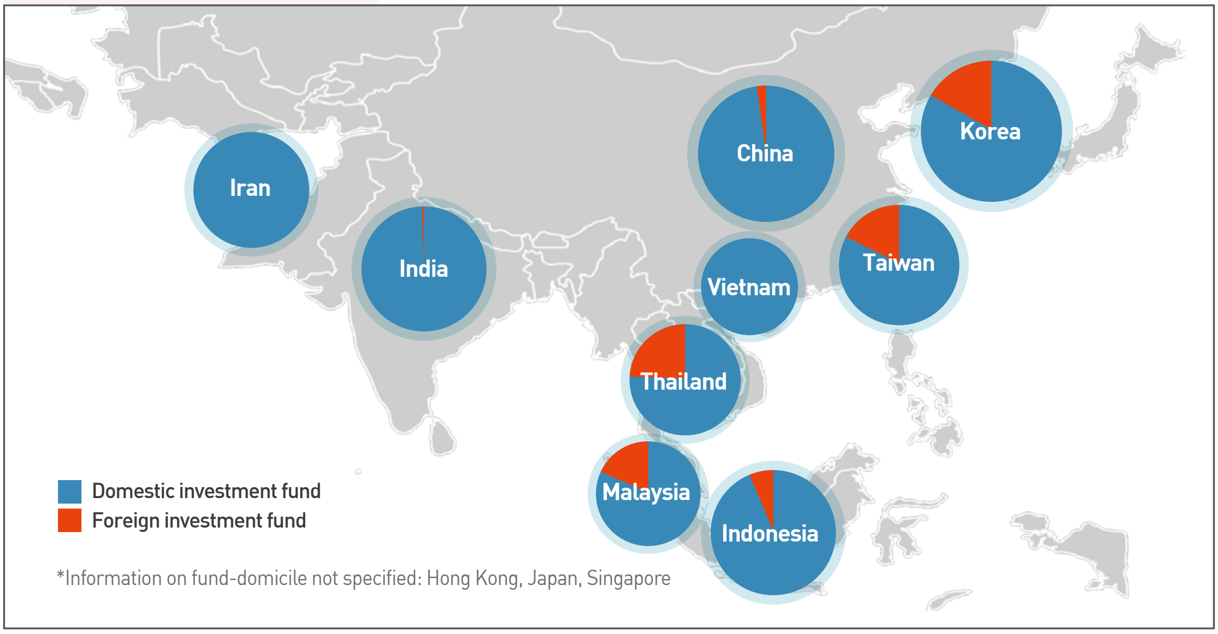
Preference for certain fund types
Iran's strong presence of bond funds is largely due to the investors' perception towards bond funds as a good alternative to commercial bank products, which absorb a significant amount of liquidity in the Iranian financial market. In addition, there is high demand for sukuk funds in Iran, home to the world's biggest Islamic finance, that provide assured returns sometimes higher than the banking system. These sukuk funds are distributed via commercial banks which have branches scattered all over Iran for better exposure to the public.

Among the economies that identified the AUM for each fund type, Taiwan's proportion of money market funds (MMF) was the largest. MMFs are considered as attractive investment options to the Taiwanese public as they generally offer higher yields than security settlement accounts. In addition, enterprises in Taiwan utilize MMFs for the salary payment or short-term loan repayment, as these accounts provide liquidity as well as steady yields.

5.3 Domestic & foreign investment fund

The low level of foreign investment in Asia is projected to see significant growth as markets mature, globalize, and become more closely integrated.

Low level of foreign investment in Asia Domestic investment funds have portfolios that primarily invest in home-domiciled assets while foreign investment funds primarily invest in assets domiciled abroad. As investors strive to diversify risk and search for alternative destination amid the prolonged low-interest-rate environment, there is an increasing trend of foreign investment funds across the globe. However, compared to other regions, Asia shows a relatively low proportion of foreign investment against the amount of domestic investment funds. This may be partly due to the fledgling fund market conditions and the closed nature of some Asian economies. The fragmented financial infrastructure and disparate regulations between economies also serve as a stumbling block for intra-regional investment. What is certain is that as markets mature, globalize, and become integrated, significant growth is anticipated not only for overall fund activities but also for active flows of foreign investment.



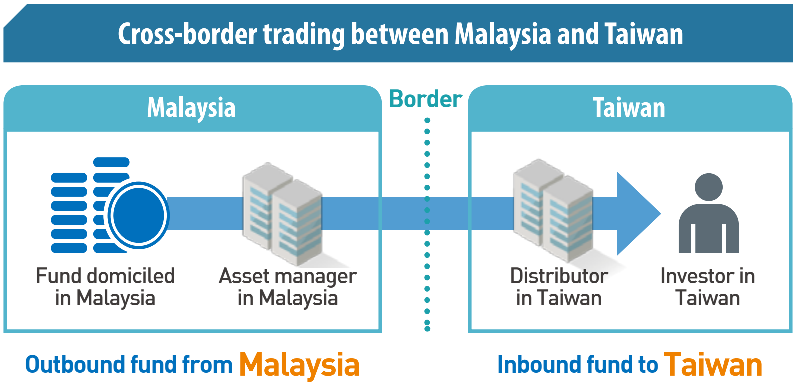
Among the economies where the data for domestic and foreign investment funds were available, Thailand demonstrated a notable proportion of foreign investment. Rather than driven by government policies, such trend is found to be a result of Thai investor demand searching for higher yield outside borders. Most of the depicted foreign investment funds are bond funds, where the average yield is slightly higher than Thai bond fund. The fact that the Bank of Thailand has gradually relaxed rules pertaining to capital movement, thereby exempting tax on bond funds, may have been an indirect incentive that encouraged foreign investment.

As for Korea, tax-deductible overseas equity fund products were introduced in February 2016 to encourage foreign investment. Investors who subscribe to this fund enjoy tax exemptions on capital gains and foreign exchange gains up to a gross investment limit of KRW 30mn (≒USD 26,000). Investors are welcoming the tax benefit as they turn to markets that show dynamic growth as an alternative to investing in the sluggish domestic market.

6. Cross-border fund trading

Further efforts for market integration and developments of fund passport schemes across Asia will pave the way for cross-border fund trading within the region.

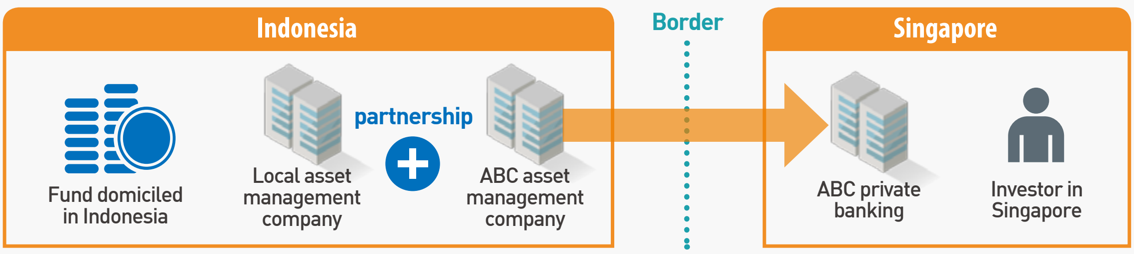
Cross-border trading takes place in two forms: locally-domiciled funds sold abroad, also known as outbound funds, or foreign-domiciled funds sold at home, which are inbound funds. If a fund domiciled in Malaysia and managed by asset managers in Malaysia are sold to Taiwan through a Taiwanese distributor, this will be a typical case of cross-border trading between Malaysia and Taiwan.



Exceptional case of products sold abroad

There are some cases where funds are sold to offshore markets, even when they do not fit the definition of cross-border fund trading. The following case is an example.

A foreign-based asset management company named ABC entered the Indonesian market via a partnership with a local asset manager. The affiliated ABC bank operating in Singapore bought some of the Indonesian-domiciled funds from the ABC asset manager through an internal network as an institutional investor. The ABC bank in Singapore then offered some of the funds to their clients in Singapore.



As such, affiliated companies under the same group with presence in more than one country can enable local fund products to be sold overseas by using their private affiliated network. However, this is not perceived to be in the boundary of cross-border trading, where a random investor should be able to visit a local distributor and gain access to a registered foreign fund.

As of now, Japan, Korea, and Taiwan have only seen foreign funds sold at home, and no cases of domestic funds sold abroad. China, Hong Kong and Singapore are the only economies engaged in both directions of cross-border trading, China recently joining with the launch of the Mainland – Hong Kong Mutual Recognition of Funds (MRF).

Economy (CSD)	Domestic funds sold abroad	Foreign funds sold in domestic market		
	Yes or No?	Yes or No?	Related data	Related law
Malaysia (Bursa Malaysia)	Not applicable			
India (CDSL/NSDL)	No	No		
Iran (CSDI)	No	No		
China (CSDC)	Yes	Yes		Mutual Recognition of Funds (MRF) with Hong Kong
Hong Kong (HKMA)	Yes	Yes	1,451* funds, USD 1,204 billion	Securities and Futures Ordinance (SFO)
Japan (JASDEC)	No	Yes	Data not available	
Korea (KSD)	No	Yes	746 funds, USD 1.6 billion	Financial Investment Services and Capital Markets Act
Indonesia (KSEI)	No	No	-	Laws of Republic of Indonesia No. 8 of 1995 on Capital Market
Singapore (SGX)	Yes	Yes	2,700** funds, USD 1,248** billion	Securities and Futures Act (SFA)
Taiwan (TDCC)	No	Yes	1,025 funds, USD 83 billion	Regulations Governing Offshore Funds
Thailand (TSD)	No	No		
Vietnam (VSD)	No	No		

* End of Mar 2015
** End of 2012

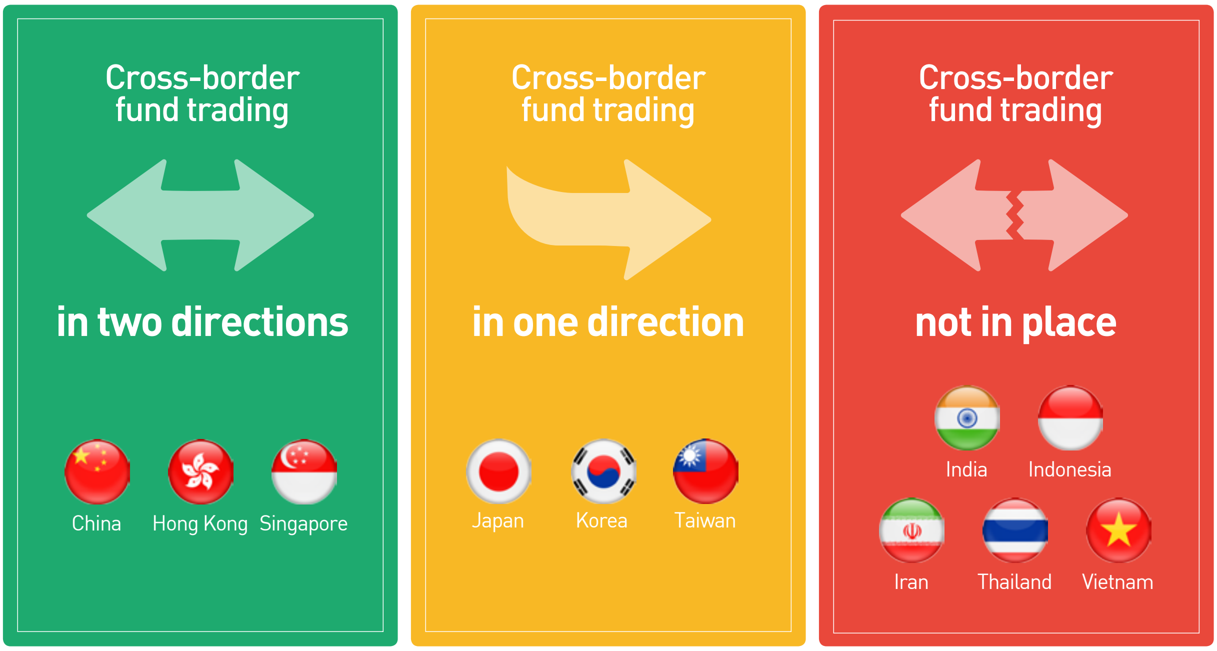
MRF between Mainland China and Hong Kong Among the Mainland funds authorized by the SFC to be sold in Hong Kong(southbound) and Hong Kong funds authorized by the CSRC to be sold in China(northbound), the first round of southbound and northbound transaction successfully took place in December 2015 and January 2016, respectively. With Hong Kong trying to better cement its position as a regional fund hub and China exploring opportunities to tap into the global fund market, the trading volume of the MRF is projected to rise, which will in turn add to the momentum for cross-border funds flows across the region.

ASEAN CIS As for the Collective Investment Scheme (CIS), there has yet to be an actual cross-border transaction among 11 CIS funds[5)] that have gained approval for trading from home regulators. Among them, only about half have also been approved by host regulators. Divergent market regulations and gaps between the level of development are being cited as some reasons that are hindering CIS transactions. However, gradual resolution of regulatory challenges and further joining of interested ASEAN members will eventually lead to a closer integration of ASEAN economies, which will become a fertile ground for the CIS to expand.

APEC ARFP The Asia Region Funds Passport (ARFP) is under preparation for launch, and significant effort will be required to bring forth its smooth implementation. However, with Australia and Japan having relatively advanced fund markets with large amounts of AUM, there is expectation in the air on whether this scheme will have substantial impact on pushing for regional cross-border flows. According to the PwC Market Research Center,[6)] the AUM in the ARFP will post an annual growth of 7% to reach a staggering USD 4.3tn by 2020. Providing tax neutrality so that the fund passports do not subject investors to tax discrimination will be one of the key factors in ensuring success of the ARFP.

Although further observation is required on the future trajectory of these fund passports before the level of success can be evaluated, it is certain that they are slowly paving the way for cross-border fund flows. As it has taken considerable time for the Undertakings for the Collective Investment in Transferable Securities (UCITS) to attain its current status, one need to be patient before the fund passports in Asia can be heralded as a viable and attractive investment choice. Standardization in not only front-office activities but also back-office operation will be essential in reducing the trials and errors facing market players, as they tread into unexperienced territory of cross-border transaction within Asia.

Cross-border Fund Trading of AFSF Economies



5), 6) 2015 PwC report, 'Asian passports, the coming of age'

Fund Market Structure

1. Market participants

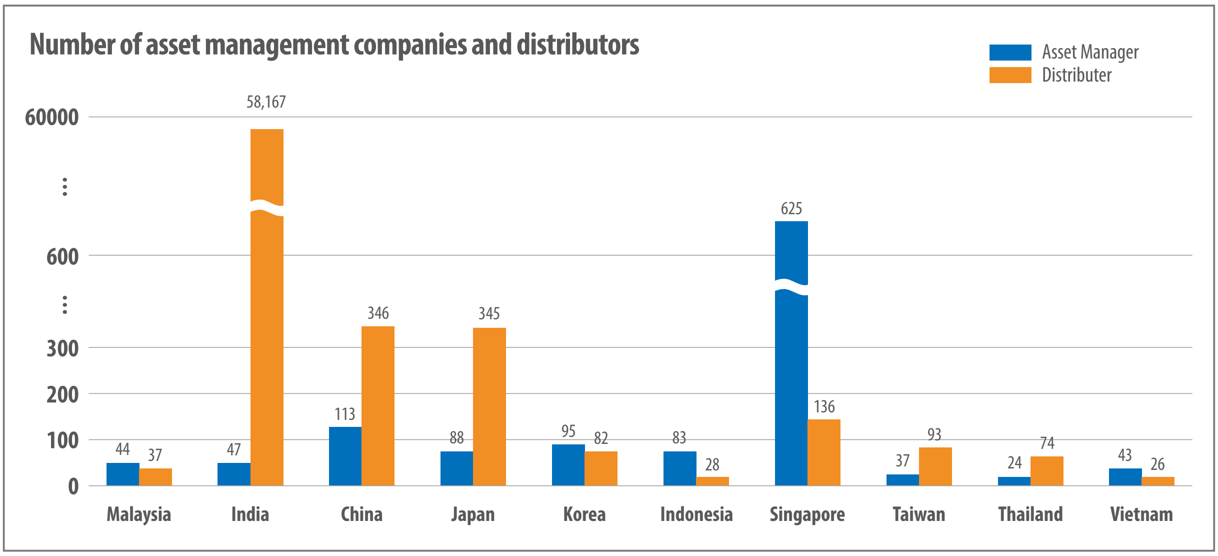
1.1 Participant breakdown

Asset management companies, custodians / trustee companies, fund administrators, transfer agents and fund distributors generally participate in the fund market, although these market functions may overlap within a single institution as an in-house division.

Various market players in the fund market Diverse market players come together in the fund market, assuming different roles and responsibilities while collaborating to support fund activities. As with other aspects of the fund industry, the roles or definitions of market players differ to a significant extent between economies. Market characteristics naturally conform to how the roles of market players are defined and how they interact with each other. Despite such distinctions, asset management companies, custodians/ trustee companies, fund administrators, transfer agents and fund distributors are generally assumed to participate in the fund market. It should be noted that some economies may not have all of the above players, or have other types of institution that come into play. Furthermore, even in the case where the mentioned players are present, the scope of activities undertaken may be different, or a single institution may assume a multiple of functions as an in-house division.

The table shows that although these five business functions of the fund market generally exist in Asian economies, they are often overlapped within a single institution. For example, in India, Iran, China, and Taiwan, AMCs play the role of a fund administrator, while such arrangements can also be partly found in Japan and Thailand. TA activities are assumed by custodians in Indonesia, and AMCs in Thailand. As for Korea, the single TA present refers to the KSD, which is the sole service provider of fund subscription and redemption services in a market where it is mandated by law to deposit all funds at the KSD. The large divergences in the number of players also suggest the varying degree in the entity's definition or scope of activities.

Economy	Asset Manager	Custodian, Trustee Company	Administration Company	Transfer Agent	Distribution Company	Others
Malaysia (Bursa Malaysia)	44	14 (Trustee)	37		37	
India (CDSL/NSDL)	42	19 (Custodian)	Same as AMC	4	58,167	
Iran (CSDI)	72	39	Same as AMC	Same as AMC	(same as no. of banks)	Registrar, Guarantor
China (CSDC)	113	42	Same as AMC	110	346	
Hong Kong (HKMA)	Data not available					
Japan (JASDEC)	88	11	Same as AMC or custodian		345	
Korea (KSD)	95	19	9	1	82	
Indonesia (KSEI)	83	17	Same as custodian	Same as custodian	28	
Singapore (SGX)	625	39	19	Yes, but data not available	136	
Taiwan (TDCC)	37	23	Same as AMC	4 (among AMC)	93	Master agent
Thailand (TSD)	24	13	Same as AMC or Outsourcing	Same as AMC	74	
Vietnam (VSD)	43	4		3	26	



Case on the Iranian market Apart from the commonly observed participants, Iran is an example of a market participated by other players with distinct functions. As the Iranian fund market is not large enough to have different entities for each market function, AMCs managing small-cap funds(minimal capital of IRR 20bn ≒ USD 0.58mn[7]) normally take on the functions of fund administrators as well as TAs. Meanwhile, for large-cap funds(minimal capital of IRR 50bn ≒ USD 1.45mn), an entity referred to as the registrar acts as the fund administrator and TA. Registrars receive identification data of the investor and bank accounts to transmit the information to the AMC and trustee company. They keep records of account details such as the amount of investment units issued or redeemed, and prepare relevant reports. There is another player called a guarantor, whose role is to fill the shortage of cash in the fund account upon the request of the fund manager to do so, when two business days prior to the due date for payment, the fund manager predicts that sufficient cash will not be provided in the fund banking account on the due date. The guarantor then applies for the issuance of investment units in a number that is proportionate to the cash paid to the fund account. Deployment of guarantors in fund business is voluntary.

Case on the Indian market Upon comparing the number of AMCs and distributors, some economies stand out. India is one of them, with a staggering number for fund distributors. This is attributable to the fact that third-party agents such as Independent Financial Advisors (IFAs) are utilized by the AMCs to reach into small cities and towns with lack of fund market infrastructure. These rural areas spread across the vast territory, also referred to as the B-15 (beyond the top 15 cities), have very low penetration of mutual funds and limited distribution network, not to mention low level of financial literacy and investor awareness. To improve distribution throughout the nation, regulators have permitted those who have retired from governments, schools, banks, or similar institutions to sell funds as IFAs, encouraging them to enter the B-15 with incentives on commission.

On the other hand, there are national distributors registered under the Association of Mutual Funds of India (AMFI), who facilitate the allotment, redemption, and switch of units of mutual funds. Banks and national distributors mostly target corporate clients, while IFAs focus on retail investors. Although utilizing IFAs is helping the Indian fund industry enhance its reach, one of the problems come from the fact that it is difficult for investors to distinguish between IFAs that sell funds for commissions and investment advisors that offer impartial recommendations.

7) 1 billion rials = 28,900 dollars, CSDI

1.2 Distribution channels

While conventional distribution channels such as banks and securities companies still dominate Asia's fund markets, electronic platforms are on the rise to grant investors better access to a wide range of products.

Conventional channels and electronic platforms Fund products can reach investors through a diverse range of channels, such as banks, securities companies, or insurance companies. Apart from these conventional face-to-face channels, which still play a dominant role in Asia, dependence on screen-based electronic platform is growing amid the trend of squeezing middle margins and lowering costs. Such growth is also driven by the fact that the financial industry is becoming more connected online and adapting to the mobile environment to cater to the younger generation who are increasingly digital native. These platforms can take the form of either an open or closed architecture, or a conversion that lies somewhere between the two types.

Open vs closed architecture An open architecture offers products from a large number of asset managers without a bias towards certain brands, adopting a neutral approach to serve the clients' needs and minimizing conflict of interests. Meanwhile, a closed architecture only offers products from one AMC, used as an online channel that is created and operated by that company. A mixed version resembles an open architecture, but is different in a way that it nudges the clients toward a certain product or a company.

Economy	Distribution Channel				Electronic platform available?
	Bank	Securities Company	Insurance Company	Others	
Malaysia (Bursa Malaysia)	○	○	○	○	○
India (CDSL/NSDL)	○			○ (Independent Financial Advisors, National Distributors)	○ (MF Utilities, Stock Exchange Platforms)
Iran (CSDI)	○			○ (fund managers)	
China (CSDC)	○ (58.41%)	○ (11.79%)		○ (29.80%)	○ (25% or so)
Hong Kong (HKMA)	○ (78%)	○ (3%)	○ (19%)		○
Japan (JASDEC)	○ (31.8%)	○ (67.5%)		○ (0.7%, AMC)	○
Korea (KSD)	○ (38.38%)	○ (55.74%)	○ (2.76%)	○ (3.12%)	○
Indonesia (KSEI)	○ (77%)	○ (23%)			○
Singapore (SGX)	○	○	○	○	○
Taiwan (TDCC)	○	○	○	○ (Master Agent)	○
Thailand (TSD)	○	○	○	○ (AMC)	○
Vietnam (VSD)	○ (3.85%)	○ (73%)		○ (23.15%)	

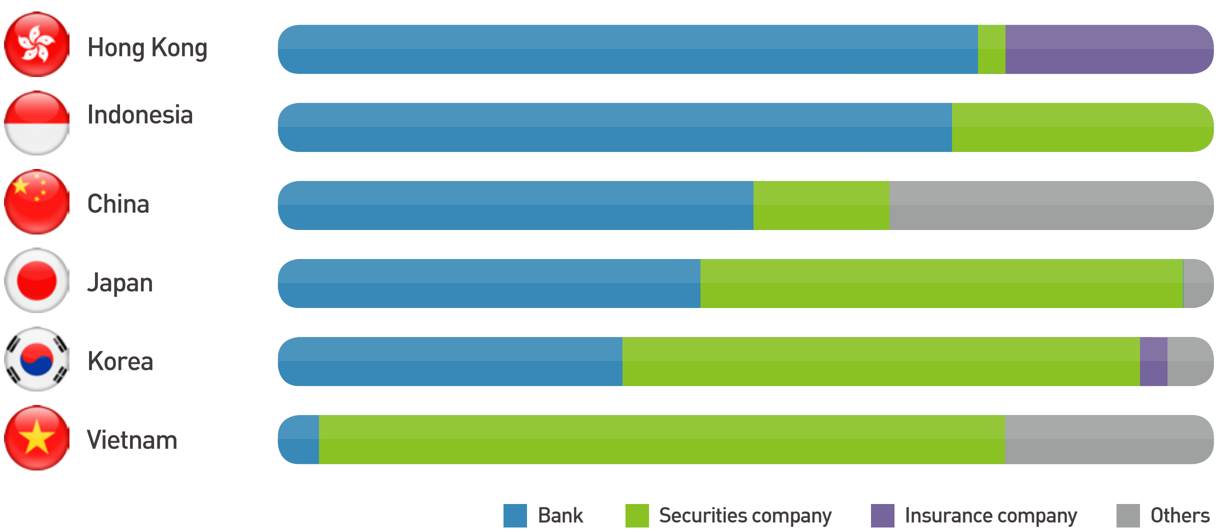
The table shows that bank being a fund distributor is a universal concept. Securities companies also had presence as distributors in most of the economies excluding India and Iran, while insurance companies sold funds in Malaysia, Hong Kong, Korea, Singapore, Taiwan, and Thailand. Many economies were found to have other entities serving as distribution channels, which included IFAs and National Distributors in India, AMCs in Iran and Thailand, and master agent in Taiwan.

Electronic platform Every economy except Iran and Vietnam had introduced electronic platforms to increase investors' access to various fund products, reflecting the global shift towards online channels. Fund Supermarket, a Korean electronic platform operated by Fund Online Korea, is a good example of an open architecture model as it received joint contribution from 47 AMCs for the establishment of the platform in 2013 to better protect neutrality of distribution. There were 895 funds registered in the Fund Supermarket as of August 2016, which accounts for more than 20% of the total public offering funds in Korea, standing at 3,693.[8]

Meanwhile, the electronic platform operated in Taiwan is called FundRich, which was established in December 2015 to support the Financial Supervisory Commission's newly introduced policies on financial technology. FundRich, contributed by 36 shareholders, is the first open platform to offer comprehensive FinTech services for mutual-funds in Taiwan, ranging from robot advisory services to STP account-opening. As a frontrunner of FinTech in the Taiwanese market, FundRich launched its service in October 2016, having successfully completed preparations upon establishment.

Different channels Among the economies where the proportion of each channel was identified, banks had a sizable share in Hong Kong and Indonesia as fund distributors. On the contrary, Vietnam showed a dominance of securities companies. The 'other' types that constituted for a significant portion in China were found to be direct sales branches of asset managers or independent fund sales agencies (IFSA) licensed with mainland fund sales qualification, such as futures companies. Nearly all AMCs in China directly sell their funds to institutional and individual investors, while most distribution to individual investors is conducted online. As for IFSAs, they have to acquire distribution qualification from the CSRC and appoint a surveillance bank to settle investors' capital. Direct sales of AMCs usually show better performance than IFSAs, and play an important role in China's distribution landscape.

Fund Distribution Channel

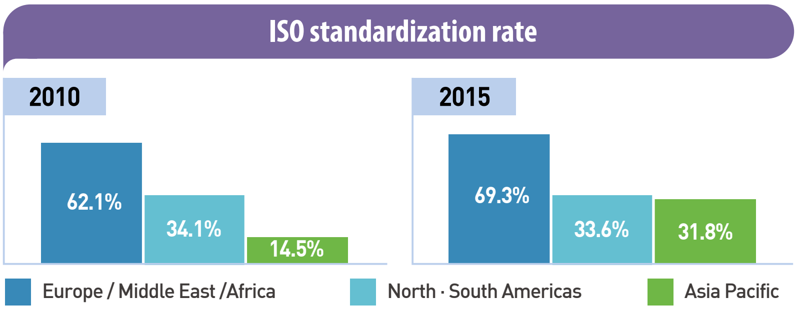


8) Fund Supermarket & Korea Financial Investment Association

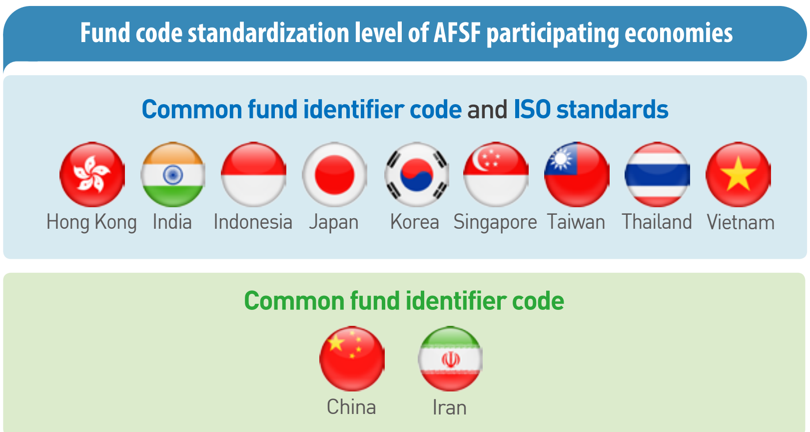
2. Fund code standardization

As having a common fund code is essential for efficient and accurate operations, fund markets have either adopted ISIN fund codes that can be applied universally or uniquely created proprietary codes.

ISO Standardization Fund codes are utilized as a means to classify and identify funds among a wide variety of products. Although some economies have built closed proprietary systems for fund identification, many have adopted the International Securities Identification Number (ISIN) code defined in ISO 6166, which is the International Organization for Standardization's (ISO) standard for securities and related financial instruments. Under the ISIN, fund products receive a unique set of 12 alpha-numerical digit codes that are identified across borders between economies that use the same system. The overall ISO standardization rate in the Asia-Pacific region had lagged significantly behind EMEA (Europe, Middle East and Africa) or the Americas back in 2010, but grew significantly to more than two-fold in 2015.[9] This reflects the recent efforts undertaken in Asian financial markets in pursuit of global standards, but still indicates plenty of room for further improvement.



Common fund identifier codes All the economies had fund identifier codes in their fund markets, with a few using proprietary codes, and the rest adopting ISIN codes. China and Iran had common local codes used across the fund industry, while the fund codes in Malaysia were not standardized between market players, with plans to introduce common codes in 2017. In the Chinese market, listed funds are coded according to the uniform coding rules of the stock exchanges, while codes for non-listed funds are assigned by coding service providers accredited by the securities and futures industry standardization organization. As for India, there had been mixed practice in the market between ISIN and proprietary codes allotted by AMCs up until recently. ISIN codes are now assigned to every mutual fund scheme in India. Thailand is one of the economies where market players still use common local codes for domestic transactions, although all newly-issued and active mutual funds have been required to have ISIN codes since 2012.



As fund activities take place among different market players, having a universally adopted code across the market is essential for efficient communication and accurate transaction. Furthermore, having such code universally adopted across the region will allow for a fund in one economy to be smoothly registered into a system of another economy. In this regards, closer integration of the markets will require stronger degree of standardization and automation that is in sync with international practices, which will shape the trend of Asian markets in the years to come.

9) Joint EFAMA SWIFT Standardization Survey 2010 & 2015

3. Fund market and SWIFT

Only Hong Kong, Japan and Singapore were found to have adopted the SWIFT system throughout their fund markets, the rest deploying other methodologies for exchanging messages.

SWIFT network for the fund market The Society for Worldwide Interbank Financial Telecommunication (SWIFT) provides a data processing platform that connects financial institutions such as banks, custodians, investment companies and corporations in countries all over the globe to exchange information on financial transactions. Used widely across different sectors of the financial industry, players in the fund market also employ standardized terminology or message solutions of SWIFT that offers STP and interoperability for account opening, orders, confirmations, reporting, etc. The SWIFT network supports the ISO 15022 and ISO 20022 formats, which are global and open standards for electronic data exchange between financial institutions. The ISO 20022 was introduced as a successor to the ISO 15022 with some additional features including the XML syntax, and the industry is currently in the transition of gradually adopting the newer version.

The CSDs in Hong Kong, Japan, and Singapore fully utilized the SWIFT network, while those in Korea opted for partial adoption that applied only in cross-border transactions. A proprietary messaging platform was used instead for domestic transactions that took place in Korea. The three CSDs excluding Hong Kong supported both the ISO 15022 and ISO 20022 messages, presumably indicating the slow transition between the two formats. The remaining CSDs were not using the SWIFT network and deployed other methodologies for exchanging transaction messages.

Economy (CSD)	SWIFT messages are used	Description
Malaysia (Bursa Malaysia)	×	
India (CDSL/NSDL)	×	
Iran (CSDI)	×	
China (CSDC)	×	
Hong Kong (HKMA)	○	ISO 20022
Japan (JASDEC)	○	ISO 15022, ISO 20022
Korea (KSD)	△ (only for cross-border transactions)	ISO 15022, ISO 20022
Indonesia (KSEI)	×	
Singapore (SGX)	○	ISO 15022, ISO 20022
Taiwan (TDCC)	×	
Thailand (TSD)	×	
Vietnam (VSD)	×	

As for the case in Japan, the Book Entry Transfer System (BETS) operated by JASDEC has been adapted for the ISO 20022 standards since January 2014, allowing system participants to communicate in ISO 20022 standard languages. The SWIFT based network and the usage of ISIN codes for fund products have significantly bolstered the STP and interoperability in the Japanese market. Apart from the SWIFT network, there is an alternative system that the Japanese investment trust industry can use, called the "Private Vendor Financial Network System". This system connects fund issuers and distributors and facilitates information exchange, but is not ISO 20022 compliant.

SWIFT message used

Hong Kong, Japan, Singapore

SWIFT message partly used

Korea

SWIFT message not used

China, India, Indonesia, Iran, Malaysia, Taiwan, Thailand, Vietnam

SWIFT for funds[10]

82%

of cross-border funds orders are now automated according to a standardization survey by SWIFT and the European Fund and Asset Management Association (EFAMA)

100+

million funds messages sent annually over SWIFT

21%

increase in funds messages on SWIFT in 2014

10) 2015 SWIFT Report 'SWIFT for Funds: Addressing Compliance and Automation'

Fund Platform

1. CSD Fund Platform

1.1 Comparison of fund services by market and CSD's role

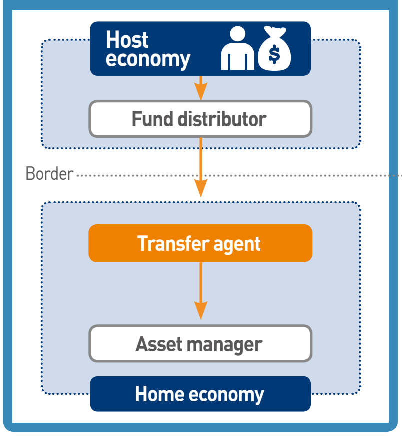
Asian CSDs have continuously expanded their roles in fund back-office processing in line with the dynamic growth of Asia's fund markets since the 2000s.

Back-office operations broadly refer to administrative services that support client-facing business functions. For the fund market, back-office operations include account management, order processing for subscription/redemption, maintenance of transaction records, execution of corporate action, etc. As the name 'back-office' implies, these operations are not conspicuous to clients and may go unnoticed, especially in the case they are conducted successfully without causing any issue. However, the fact that the operations are hidden does and should not undermine their importance in the industry for smooth business transactions.

Across different fund markets, there were three types of services that support the back-office processing of cross-border fund transactions: TA model, CSD model, and the global platform model.

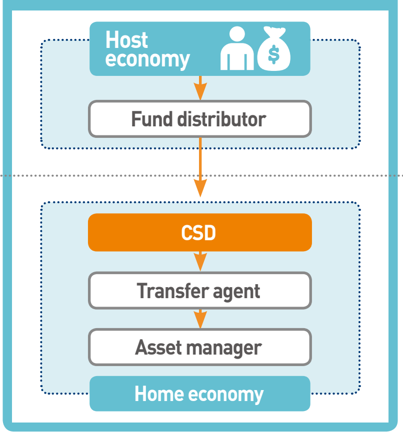
Transfer Agent Model

Under a TA model, transfer agents are responsible for fund back-office operations. The asset management company and distributor are connected via a bilateral contract, often linked with a TA in between, to deliver orders or conduct settlement. Apart from such individual arrangements between market players, there is no centralized platform or infrastructure in place for fund processing.



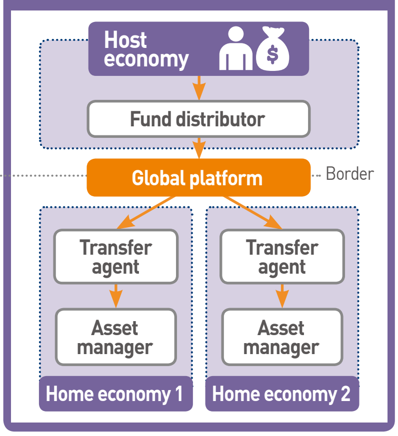
CSD Model

The second type is the CSD model, where the national CSD processes subscription/redemption orders or settlement through a centralized platform tailored to the market. The fund processing services offered by the CSD will vary in scope and method according to different market conditions. There is a shift towards such centralized platforms in the fund market as they are efficient means of aggregating deals, and more CSDs in the region are naturally taking up the role.



Global Platform Model

Distributors and TAs from a multiple economies are connected through a single access point, which processes fund back-office operations based on an automated central hub. These global fund platforms include FundSettle of Euroclear Bank and Vestima of Clearstream.



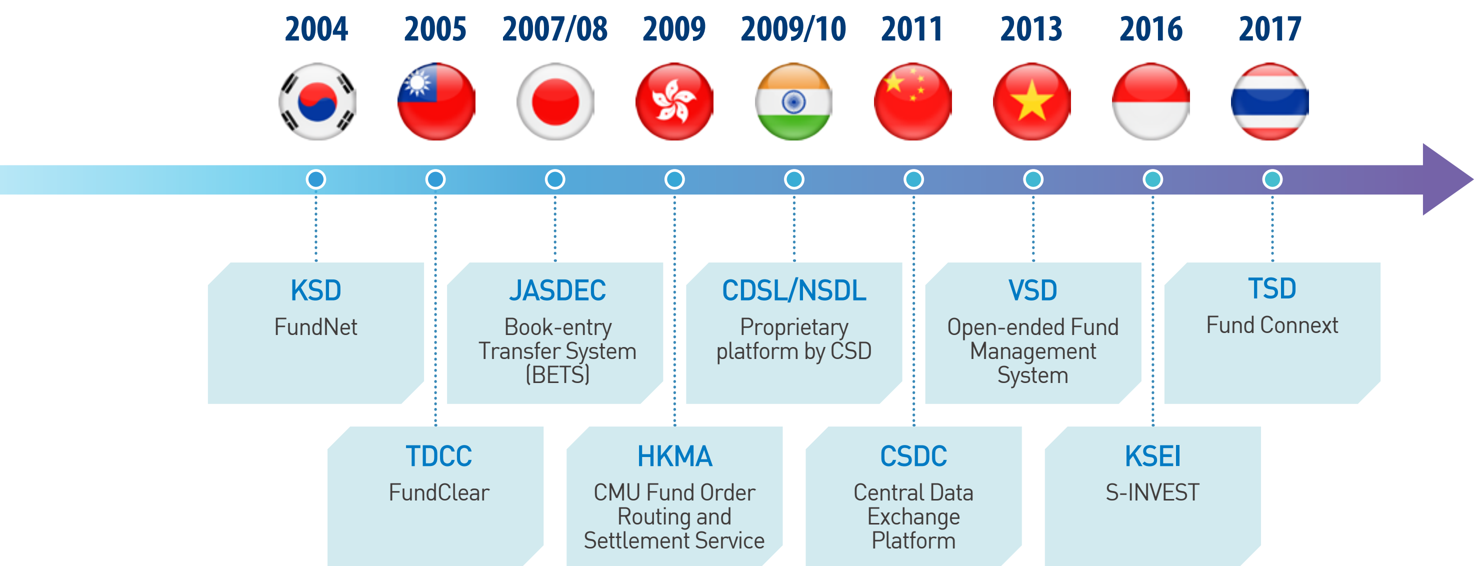
Fund back-office operations in Asia Unlike the European region, where an interoperable market environment has facilitated active cross-border flows of UCITS, the Asian region lacks a pan-regional framework or authority that can govern border-transcending activities. Furthermore, the deep variances between the level of fund market maturity, infrastructure, and relevant regulations across the region have proved difficult for standardized fund market practices to take root. Unlike Europe which has largely adopted a global fund platform model that relies on the services of global fund service providers such as Euroclear Bank or Clearstream for fund back-office operations, Asia shows a mix of the three models, selected differently between transaction types. TA models are dominantly used in economies such as Malaysia and Singapore, while CSD models are prevalent in China and Taiwan, moreover exclusively used for on-shore funds in Korea.

Prospect of cross-border fund flows in Asia The heavily heterogeneous traits of Asian economies, along with the significantly low levels of automation and standardization of fund back-office operations, should be taken into account in coming up with the best way to support cross-border transactions. Although the global fund platform model is effectively supporting cross-border activities in Europe based on automated STP, this does not mean that it is a panacea for any region. It is evident that the Asian fund market will continue to see vibrant growth while cross-border fund markets expand as a result of fund market integration on the back of fund passport schemes, and the need to come up with a relevant processing model will become more pronounced.

Transformation of CSD fund services Up until fairly recently, fund platforms have been perceived to be in the scope of value-added services rather than core business functions of CSDs in Asia. Most CSDs had focused their deposit and settlement services on conventional financial instruments such as equity and bond, and investment funds were considered to be in the business boundary of banks, brokerage houses, or other financial institutions. In addition, as many Asian fund markets were in the fledgling stage of development, trading volumes within the fund markets were small enough to be processed through manual work between market participants by way of fax, email, or phone calls. However, since 2000, Asia's fund markets saw dramatic development, accompanied by notable increases in trading volume. In the changing environment, it was too costly and time consuming to maintain the existing manual approach for fund back-office operations, not to mention inefficient with increased exposure to operational risk and transparency issues. This led the CSDs to acknowledge the importance of a fund platform that can process fund activities such as subscription and redemption via an automated system.

Establishment of CSD fund platforms Starting with Korea in 2004, CSDs across Asia soon introduced fund platforms focused on fund subscription and redemption functions, in order to better support the back-office operations of fund transactions. The establishment and operations of these fund platforms have been positively evaluated in the region, and other CSDs have joined the queue for expanding and evolving their fund services. The recent establishment of a fund platform in Indonesia and Thailand's plan to build one in 2017 also indicate the trend of CSDs expanding their business into fund platforms.

Establishment of Asian CSDs' fund infrastructure



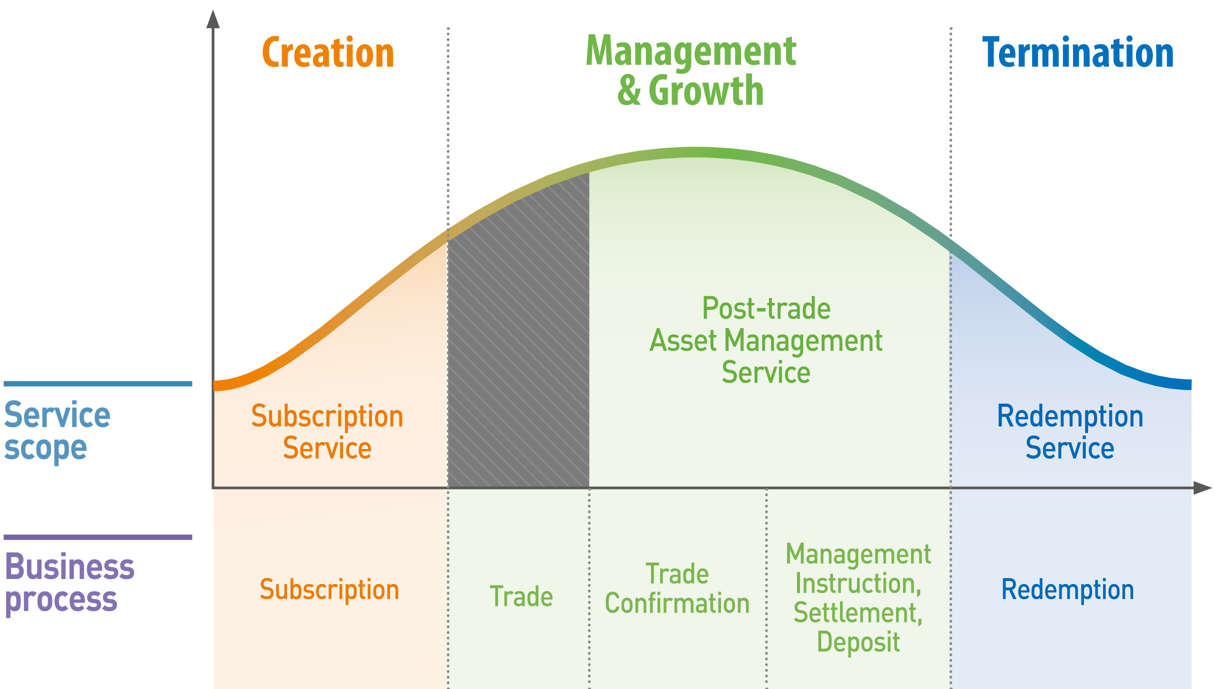
1.2 Service coverage of CSD fund platforms

While fund back-office operations can be broadly divided into subscription/redemption processing and post-trade asset management service, the scope and type of fund service offered vary among CSDs.

Subscription/redemption processing Most of the fund platforms provided by Asia's CSDs are centered on the processing of fund subscription and redemption. Such processing includes order routing, fund settlement, account management, and corporate action related to fund subscription and redemption between the fund distributor and asset manager.

Post-trade asset management support This refers to services that support the management of fund assets, including the custody of fund assets, management/settlement instructions, and trade matching between asset managers, brokers, and custodians. One example is the KSD's fund platform called FundNet, which provides comprehensive service for the entire lifespan of a fund, from subscription/redemption to the management of fund assets. The KSEI in Indonesia also launched a fund platform named S-INVEST in August 2016, now offering trade matching and management instruction services.

Back-office operations throughout fund life-cycle



Scope of Asian CSDs' fund services

Service type	Service Scope
Subscription Service & Redemption Service	CDSL / NSDL, CSDC, HKMA, JASDEC, TDCC, VSD, KSD, KSEI
Post-trade Asset Management Support	KSD, KSEI

*CSDC is partially offering management support services with its custody service for fund assets.

Scope of KSD's fund platform service

Subscription / redemption

- Registration of fund details
- Subscription & redemption & conversion
- Settlement and deposit of fund unit
- Corporate action of fund unit
- Management of beneficiary list

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Post-trade asset management support

- Integrated trade confirmation
- Management of instruction delivery
- Settlement of securities
- Fund by fund deposit

1.3 Comparison of CSD fund platforms by market

The fund platform workshop held between the CSDs of four economies (China, Japan, Korea, and Taiwan) was a meaningful occasion to promote understanding on each other's fund markets and fund platforms, setting the foundation for further discussion.

Fund platform workshop The CSDs of China, Japan, Korea, and Taiwan held a one-on-one fund platform workshop in September 2015, with an aim to better understand the fund platform services of each CSD and set the foundation to promote discussion on an optimal fund platform model through future AFSF activities. The outcome from the workshop was shared with AFSF members during the AFSF Knowledge Sharing Workshop held in June 2016.

Subscription/redemption processing All the four CSDs offer subscription/redemption processing services for the on-shore fund markets through their CSD fund platforms. In China and Korea, market participants are required by law to use the CSD platform for the subscription and redemption of funds. Taking the Korean market for example, all fund units must be deposited under the name of the KSD pursuant to the Financial Investment Services and Capital Markets Act. The subscription and redemption of these funds naturally take place within the KSD's FundNet system. As for China all fund units are registered at the CSD in a dematerialized form, and the law mandates market participants to use the fund platform for subscription and redemption. The case in Taiwan is similar in a way that it is mandatory for all fund units to be registered at the CSD in a dematerialized form. However, TDCC's fund platform service for subscription and redemption is offered to clients as an option they can choose for its convenience. In Japan, although the use of the BETS is not legally mandated under the law, it is mandatory in a practical sense, since it is the most efficient system that connects numerous stakeholders in the Japanese fund market who are involved in the processing of public offering funds.

Post-trade asset management support Apart from the subscription/redemption processing, CSDC and KSD offers extended services that provide post-trade management support. CSDC's fund platform is specialized for fund custody services while KSD's platform adopts a more comprehensive approach, offering integrated-trade confirmation and securities settlement among other services.

Other value-added services Based on the linkage with Euroclear Bank's FundSettle and Clearstream's Vestima, the KSD offers an off-shore fund platform service for domestic investors investing in off-shore funds. Meanwhile, TDCC operates a reporting & announcement platform which reports information on off-shore funds to government authorities and discloses relevant material to the industry association and investors. Market players are mandated to use this service for reporting and disclosure.

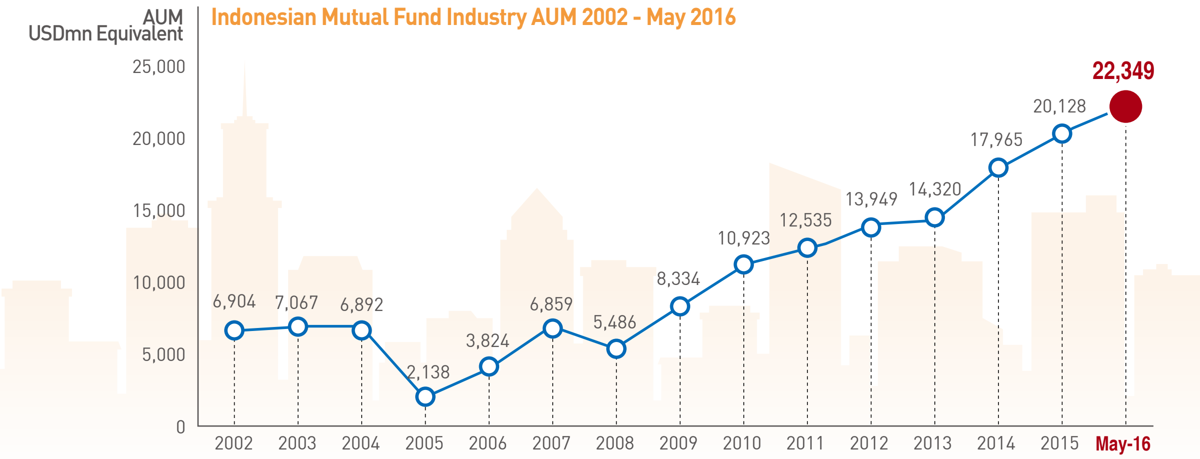
Comparison summary of service scope between four fund platforms

	JASDEC	CSDC	KSD	TDCC
Fund Subscription & Redemption Processing	• Book-entry Transfer System for Investment Trusts (BETS) On-shore Mandatory	• Central Data Exchange Platform On-shore Mandatory • Transfer Agent Service On-shore Off-shore Voluntary	• Fund Subscription & Redemption Service On-shore Mandatory	• Transmission & Payment Service On-shore Off-shore Voluntary • Fund Order Routing Service On-shore Off-shore Voluntary
Post-trade Asset Management Support	-	• Custody Service On-shore Voluntary	• Post-trade Asset Management Service On-shore Mandatory	-
Other Value-added Services	-	-	• Off-Shore Fund Platform Service Off-shore Voluntary	• Reporting & Announcement Platform Off-shore Mandatory

Establishment of new fund platforms in Asia Amid the dynamic growth of Asia's fund markets and interest for efficient and transparent back-office operations rising, more CSDs are acknowledging the importance of fund platforms. There are movements among CSDs to build centralized platforms, provide automated STP services for the fund market, and create new sources of revenue. A case in point is the KSEI from Indonesia, which recently rolled out its fund platform named S-INVEST in August 2016.

As typically found in fund markets in its early stage of development, the Indonesian fund market had leaned heavily on manual operations, resulting in the low level of automation and standardization throughout the industry and consequent limits on efficiency, accuracy, and transparency. In an effort to advance the market, the KSEI received business consultation on the establishment of the fund platform in November 2014, initiated system development in June 2015, and eventually launched the S-INVEST in August 2016. The KSD participated as a technological advisor and developer to the S-INVEST system, which broadened the possibility for linkage models between CSD fund platforms in the future.

The growth of the Indonesian fund market



KSEI's Establishment of S-INVEST

Project Title	S-INVEST Development Project
Project Period	**Business Consultancy :** Nov 2014 – May 2015 **System Development :** Jun 2015 – Aug 2016
Project Objective	Integrated & Centralized System for efficient Indonesia Fund Market Industry
Project Approach	Cooperation with other CSD(KSD) / Participant Driven / Cooperative Development


Visiting activity of the Web-site by hours

Conclusion

This report will be used as a baseline for the comparison and analysis of Asia's fund markets and CSD fund services, with an aim to fulfill the goal of AFSF, which is to promote the standardization of fund back-office operations for cross-border transactions.

As mentioned in the introduction, the short-term goal of the AFSF is to compare and analyze Asia's fund markets that can serve as the foundation for standardization. Efforts to fulfill the short-term goal culminated with the publication of this report, which will be a stepping stone towards the mid- to long-term goal of the Forum and contribute to proposing an optimal back-office processing model for the region.

The report, composed of three parts—fund market overview, fund market structure, and fund platform—delivers meaningful implications for the future activities of the AFSF.

Fund market overview The fund markets in Asia boast substantial growth potential, and a number of fund passport initiatives are poised to bolster cross-border fund flows across the region. However, the variances in the fund regulatory environment or market practices will be one of the fundamental challenges to the integration and shared-growth of the fund markets. Discussion to promote standardization of back-office operation will be essential to push for market integration and further advance Asia's fund markets.

Fund market structure The fund market structure of each economy portrayed distinctive traits, reflecting the differences in economic conditions, level of maturity, or country characteristics. Market participants, business licensing, distribution channels, and other aspects of the fund market were vastly different, which will have to be taken into account with regards to the efforts for standardization. In particular, enhancing understanding and promoting discussion on fund codes or transaction messages, the basic elements of fund transactions, should be considered a priority.

Fund platform Acknowledging the importance of centralized fund platforms, many CSDs are expanding and evolving their fund services in order to improve the efficiency and effectiveness of fund processing operations. Information exchange and knowledge sharing on the developments of fund services and platforms will expedite preparations needed for an integrated market.

Future plans Given the vast differences between fund markets, the AFSF's mission of proposing an optimal fund back-office processing model or best practices is not a goal that can be fulfilled overnight. Based on a far-sighted approach, the AFSF will continue to foster collaboration among AFSF members and promote discussion on standardization of fund back-office operations under the overarching theme of shared-growth within Asia's integrated fund market. Going forward, the AFSF will expand its network to cooperate with fund market regulators and market players to create synergetic effects, which will in turn further strengthen the region's fund markets.

Appendix:
Market Summary

CHINA

- **Fund market AUM :** USD 897bn
- **Number of funds :** 1,897 (public offering funds)
- **Fund AUM to GDP ratio :** 9%

(as of the end of 2014)

CSD : China Securities Depository & Clearing Corp. (CSDC)

Established in 2001 in line with the Securities Law of the People's Republic of China, CSDC is the CSD, SSS and CCP of the Chinese capital market. It provides central registration, depository and settlement services for stocks, bonds and other financial instruments listed on Shanghai Stock Exchange (SSE), Shenzhen Stock Exchange (SZSE) and the National Equities Exchange and Quotations (NEEQ), as well as TA and custodian functions for fund products.

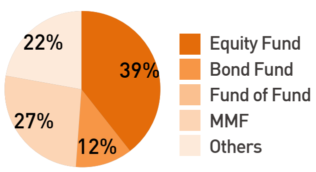
Website : www.chinaclear.cn/english/en_index.shtml

Fund Market Regulatory Framework

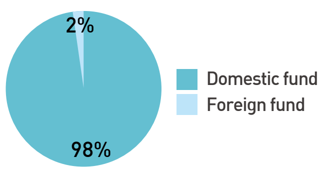
- **Regulation :** Securities Investment Fund Law of the People's Republic of China (2015 Amendment)
- **Regulator :** China Securities Regulatory Commission (CSRC)
- **Requirements for a public offering fund :** Solicit investment in a fund from 200 or more persons & Subscription amount should be no less than the minimum registered amount

Fund Market Features

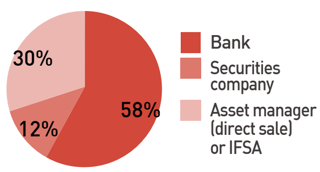
Fund type by invested asset



Domestic vs foreign investment



Distribution channel



Fund structure	Open-end mutual fund	Closed-end mutual fund
Open-end vs Closed-end	Open-end	Closed-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange
Incorporated?	Un-incorporated	Un-incorporated

Cross-border fund trading

Outbound trading (domestic funds sold abroad) & Inbound trading (foreign funds sold at home) [via MRF]

Fund standardization

- Common fund identifier code: Local proprietary code
- Use SWIFT fund message?: No

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	√ [Central Data Exchange Platform]

HONG KONG

- Fund market AUM : USD 1,322bn
- Number of funds : 2,045
- Fund AUM to GDP ratio : 456%

(as of the end of Mar. 2015)

CSD : Hong Kong Monetary Authority (HKMA)

HONG KONG MONETARY AUTHORITY

The HKMA is Hong Kong's central banking institution. The Central Moneymarkets Unit (CMU) established in 1990, is operated by the HKMA to provide computerised clearing, settlement and custody services for debt securities in Hong Kong.
CMU's Fund Order Routing and Settlement Service also provides a standardised platform for the efficient routing and processing of investment fund transaction orders.

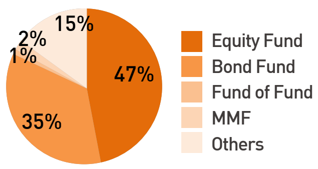
Website : www.hkma.gov.hk/eng/

Fund Market Regulatory Framework

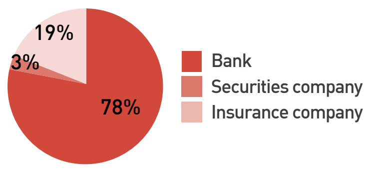
- **Regulation :** Securities and Futures Ordinance (SFO)
- **Regulator :** Securities and Futures Commission (SFC) (* Inspection/supervision of banks: HKMA)
- **Requirements for a public offering fund :** No precise rule defining public offering and private placement

Fund Market Features

Fund type by invested asset



Distribution channel



Cross-border fund trading

Outbound trading (domestic funds sold abroad) &
Inbound trading (foreign funds sold at home)

Fund standardization

- Common fund identifier code: ISIN format
- Use SWIFT fund message?: Yes (20022)

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	√ [CMU Fund Order Routing and Settlement Service]

INDIA

- **Fund market AUM :** USD 181bn
- **Number of funds :** 600 (approx.)
- **Fund AUM to GDP ratio :** 9%

(as of the end of 2014)

CSD : Central Depository Services (India) Ltd. (CDSL)

Central Depository Services (India) Limited (CDSL), a Market Infrastructure Institution - a securities depository operating in India, having a pan India presence. CDSL is predominantly owned by various public and private sector banks and BSE Ltd. (Bombay Stock Exchange Limited). CDSL provides systems and infrastructure to hold electronic records of ownership of securities including Mutual Fund Units and also records transfers of the same electronically.

Website : www.cdslindia.com

CSD : National Securities Depository Ltd. (NSDL)

Established in 1996, NSDL is India's largest depository, holds more than 89% of the demat securities held in India with securities valued at more than USD 1.9 trillion which is larger than GDP of 180 countries around the world. NSDL has established a national infrastructure of international standards that settles over 89% of value of securities traded and settled on Indian stock exchanges. NSDL services more than 15 million demat account holders through its Participants from about 27,000 locations. NSDL covers 89% of PIN codes in the country and has presence in all States and Union Territories.

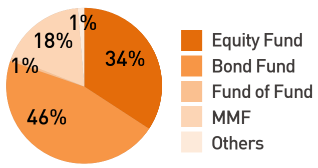
Website : www.nsdl.co.in

Fund Market Regulatory Framework

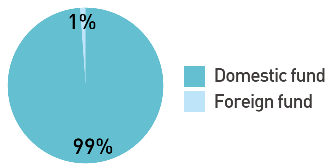
- **Regulation :** SEBI Regulations / Securities Contract (Regulation) Act, etc.
- **Regulator :** Securities and Exchange Board of India (SEBI)
- **Requirements for a public offering fund :** Solicit investment in a fund from 25 or more persons

Fund Market Features

Fund type by invested asset



Domestic vs foreign investment



Fund structure	Open-end mutual fund units	Close-end mutual fund units
Open-end vs Closed-end	Open-end	Closed-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange
Incorporated?	Un-incorporated (unit trust)	Un-incorporated (unit trust)
M/S	90%	10%

Cross-border fund trading

None

Fund standardization

- Common fund identifier code: ISIN format
- Use SWIFT fund message?: No

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	√ [proprietary platform]

INDONESIA

- Fund market AUM : USD 20bn
- Number of funds : 1,032
- Fund AUM to GDP ratio : 2%

(as of the end of 2015)

CSD : PT. Kustodian Sentral Efek Indonesia (KSEI)

- Established on December 23, 1997, pursuant to the Capital Market Law No. 8 year 1995.
- A Self Regulatory Organization (SRO) within the framework of the Indonesia capital market.
- Obtained its business license from the Financial Services Authority (OJK) on November 11, 1998 to provide central securities depository services.

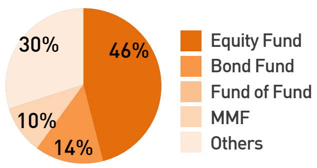
Website : www.ksei.co.id

Fund Market Regulatory Framework

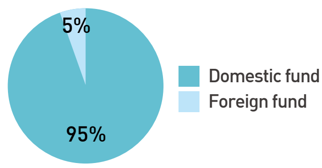
- **Regulation :** Laws of Republic of Indonesia No. 8 of 1995 on Capital Market, FSA Rule
- **Regulator :** The Ministry of Finance and the Central Bank / Financial Services Authority (OJK)
- **Requirements for a public offering fund :** Offered to more than 100 parties or purchased by more than 50 parties

Fund Market Features

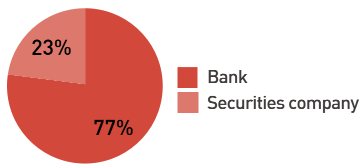
Fund type by invested asset



Domestic vs foreign investment



Distribution channel



Fund structure	Mutual fund	ETF
Open-end vs Closed-end	Open-end	Closed-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange
Incorporated?	Contractual fund	Contractual fund
M/S	98.5%	1.5%

Cross-border fund trading

None

Fund standardization

- Common fund identifier code: S-INVEST fund code & ISIN format
- Use SWIFT fund message?: No

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	√ [S-INVEST]

IRAN

- Fund market AUM : USD 14.8bn
- Number of funds : 156
- Fund AUM to GDP ratio : 3.5%

(as of the end of 2015)

CSD : Central Securities Depository of Iran (CSDI)

Central Securities Depository of Iran

Founded in 2005, Central Securities Depository of Iran (CSDI) is the sole registry entity and clearing house for all exchanges in the Iranian capital market. It is prospecting for international partners to facilitate inflow of foreign investment.

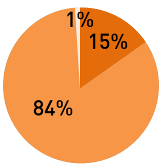
Website : www.en.csdiran.com

Fund Market Regulatory Framework

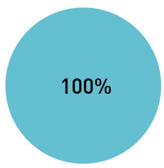
- **Regulation :** Securities Market Act of Islamic Republic of Iran
  The law for development of new financial instruments and institutions, etc.
- **Regulator :** Securities and Exchange Organization (SEO)
- **Requirements for a public offering fund :** The fund originators need to purchase a determined number of units as preferential units and then offer other units publicly without any limitations on the number of units

Fund Market Features

Fund type by invested asset



Domestic vs foreign investment



Fund structure	Mutual fund	ETF
Open-end vs Closed-end	Open-end	Closed-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange
Incorporated?	Un-incorporated	Un-incorporated
M/S	99%	1%

Cross-border fund trading

None

Fund standardization

- Common fund identifier code: Local proprietary code
- Use SWIFT fund message?: No

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	

JAPAN

- Fund market AUM : USD 1,307bn
- Number of funds : 9,149
- Fund AUM to GDP ratio : 27%

(as of the end of Mar. 2015)

CSD : Japan Securities Depository Center, Inc. (JASDEC)

Japan Securities Depository Center, Inc. (JASDEC) is a Japanese CSD offering settlement and administration services for securities, corporate bonds and investment trusts.
Since its commencement of operation in 1991, JASDEC has been at the forefront of securities settlement system reform and provides reliable, convenient, and highly efficient services.

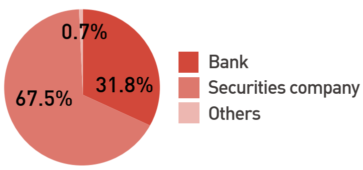
Website : www.jasdec.com/en/

Fund Market Regulatory Framework

- **Regulation :** The Law Concerning Securities Investment Trusts and Securities Investment Companies
  The Financial Instruments and Exchange Act
- **Regulator :** Local Finance Bureau, Ministry of Finance Japan / Financial Services Agency (FSA)
- **Requirements for a public offering fund :** Solicit investment in a fund from 50 or more persons

Fund Market Features

Distribution channel



Fund structure	Investment trust (excluding ETF)	Investment trust (ETF)	Investment corporation
Open-end vs Closed-end	Open-end	Close-end	Closed-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange	Traded on exchange
Incorporated?	Un-incorporated	Un-incorporated	Investment company
M/S (as of Jul. 2016)	85.2%	9.5%	5.4%

Cross-border fund trading

Only inbound trading (foreign funds sold at home)

Fund standardization

- Common fund identifier code: ISIN format
- Use SWIFT fund message?: Yes (15022, 20022)

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	√ [Book-entry Transfer System]

KOREA

- **Fund market AUM :** USD 377bn
- **Number of funds :** 12,729
- **Fund AUM to GDP ratio :** 27%

(as of the end of 2015)

CSD : Korea Securities Depository (KSD)

The Korea Securities Depository is the only CSD in the Korean market, offering a wide range of services including securities deposit, settlement, corporate action and TA functions. Established in 1974, the KSD serves as a core infrastructure for Korea's financial industry, supporting the business of more than 1,400 market participants.

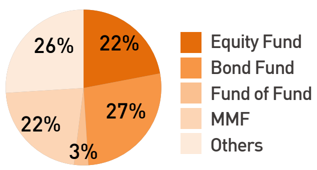
Website : www.ksd.or.kr/eng

Fund Market Regulatory Framework

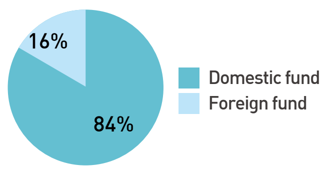
- **Regulation :** Financial Investment Services and Capital Markets Act (FSCMA), etc.
- **Regulator :** Financial Services Commission (FSC) / Financial Supervisory Services (FSS)
- **Requirements for a public offering fund :** Solicit investment in a fund from 50 or more persons

Fund Market Features

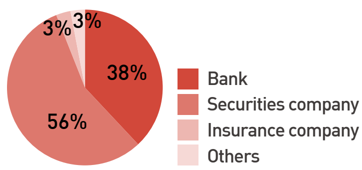
» Fund type by invested asset



» Domestic vs foreign investment



» Distribution channel



» Fund structure	Unit trust	Investment company
Open-end vs Closed-end	Open-end	Closed-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange
Incorporated?	Un-incorporated	Company structure
M/S	98%	2%

» Cross-border fund trading

Only inbound trading (foreign funds sold at home)

» Fund standardization

- Common fund identifier code: ISIN format
- Use SWIFT fund message?: Only for off-shore fund transactions (15022, 20022)

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	√ [FundNet]

MALAYSIA

- **Fund market AUM :** USD 180bn
- **Number of funds :** 612
- **Fund AUM to GDP ratio :** 75%

(as of the end of 2014)

CSD : Bursa Malaysia Depository Sdn. Bhd.

Bursa Malaysia Depository Sdn Bhd is incorporated under the Companies Act 1965 and governed by the Securities Industry(Central Depositories) Act, 1991 (SICDA) to undertake central depository function. It operates a system for central handling for all types of equity securities that are listed on the stock exchange i.e. ordinary shares, moratorium shares, preference shares, stapled securities and non-equity securities such as Company Warrants, Sukuk Bond, Loan Stocks, Bonds, Provisional Allotment Letters (PALs),Exchange Traded Fund (ETF), Real Estate Investment Trust (REITS), Structured Warrants i.e.Call Warrant and Callable Bull Bear Certificate (CBBC).

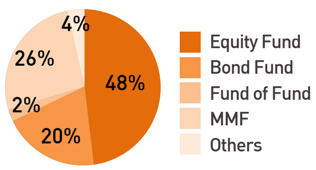
Website : www.bursamalaysia.com

Fund Market Regulatory Framework

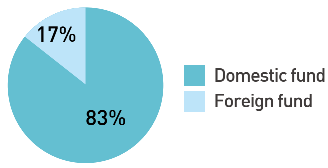
- **Regulation :** Capital Markets and Services Act 2007
- **Regulator :** Securities Commission Malaysia
  (*Inspection/supervision of market participants of units trust: Federation of Investment Managers Malaysia)
- **Requirements for a public offering fund :** No precise rule defining public offering and private placement. However, securities offering undertaken as part of a listing scheme should comply with the shareholding spread requirement of Bursa Securities

Fund Market Features

Fund type by invested asset



Domestic vs foreign investment



Cross-border fund trading

Un-identified

Fund standardization

- Common fund identifier code: Local proprietary code
- Use SWIFT fund message?: No

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	

SINGAPORE

- **Fund market AUM :** USD 1,780bn
- **Number of funds :** n/a
- **Fund AUM to GDP ratio :** 590%

(as of the end of 2014)

CSD : Singapore Exchange (SGX)

Singapore Exchange is Asia's leading and trusted market infrastructure, facilitating the exchange of capital and ideas to create value for people, businesses and economies. As a multi-asset exchange operating equity, fixed income and derivatives markets to the highest regulatory standards, SGX is a vertically integrated business that provides listing, trading, clearing, settlement, depository and data services.

With about 40% of listed companies and 90% of listed bonds originating outside of Singapore as well as established linkages across the region and in Europe, SGX is Asia's most international and connected exchange. Offering a full suite of derivatives products across Asian equity indices, commodities and currencies, SGX is the world's most liquid offshore market for the benchmark equity indices of China, India, Japan and ASEAN.

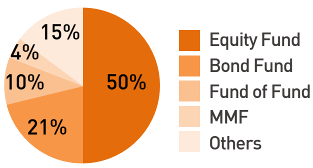
Website : www.sgx.com

Fund Market Regulatory Framework

- **Regulation :** Securities and Futures Act (SFA) / Financial Advisers Act (FAA)
- **Regulator :** Monetary Authority of Singapore (MAS)
- **Requirements for a public offering fund :** No precise rule defining public offering and private placement. However, in the case investment is solicited to 50 or more persons, the CIS should be authorized and recognized by the MAS.

Fund Market Features

Fund type by invested asset



Cross-border fund trading

Outbound trading (domestic funds sold abroad) & Inbound trading (foreign funds sold at home)

Fund standardization

- Common fund identifier code: ISIN format
- Use SWIFT fund message?: Yes (15022, 20022)

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	

TAIWAN

- **Fund market AUM :** USD 149bn
- **Number of funds :** 1,671
- **Fund AUM to GDP ratio :** 28%

(as of the end of 2014)

CSD : Taiwan Depository & Clearing Corp. (TDCC)

TDCC

Established in October 1989, the Taiwan Depository & Clearing Corporation (TDCC) is the only post-trade service organization in the Taiwanese stock market. We offer comprehensive services such as securities registration, clearing and settlement, book entry transfer, issuer services as well as electronic voting to shareholders. Our business scope includes securities, mutual funds, corporate action services, fixed-income and information services. We provide post-trade infrastructure for clearing, settlement and depository to the stock, bond and bill market by adopting advanced information services.
To adhere to the faith of serving the market/investors and following the global trend, we are dedicated to improving our service efficiency, aiming to provide a safer, more convenient and efficient environment to the financial market.

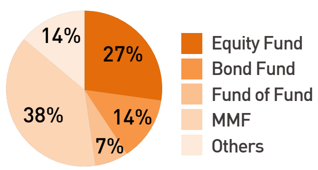
Website : www.tdcc.com.tw

Fund Market Regulatory Framework

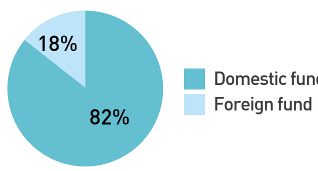
- **Regulation :** Securities Investment Trust and Consulting Act
- **Regulator :** Financial Supervisory Commission (FSC) / Central Bank of the Republic of China
- **Requirements for a public offering fund :** Solicit investment in a fund from 35 or more persons

Fund Market Features

Fund type by invested asset



Domestic vs foreign investment



Fund structure	Mutual fund	Close-end fund
Open-end vs Closed-end	Open-end	Closed-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange
Incorporated?	Un-incorporated	Investment company
M/S	88.5%	11.5%

Cross-border fund trading

Only inbound trading (foreign funds sold at home)

Fund standardization

- Common fund identifier code: ISIN format
- Use SWIFT fund message?: No

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	√ [FundClear]

THAILAND

- **Fund market AUM :** USD 103bn
- **Number of funds :** 1,584
- **Fund AUM to GDP ratio :** 28%

(as of the end of 2014)

CSD : Thailand Securities Depository (TSD)

The Thailand Securities Depository Co., Ltd. (TSD) is a subsidiary of The Stock Exchange of Thailand. Established in 1994, TSD provides two types of securities post trade services including depository and registration (so called TA service). As of September 2016, TSD serves 806 participants with asset in custody approximately USD 0.6 trillion.

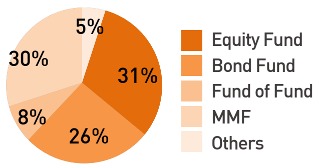
Website : www.set.or.th/tsd/en/about/overview.html

Fund Market Regulatory Framework

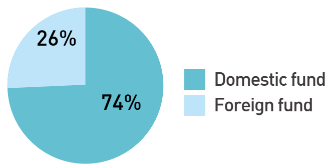
- **Regulation :** Securities and Exchange Act BE2535
- **Regulator :** The Securities and Exchange Commission (SEC)
- **Requirements for a public offering fund :** Solicit investment in a fund from 35 or more persons (mutual funds for general investors/accredited investors)

Fund Market Features

Fund type by invested asset



Domestic vs foreign investment



Fund structure	Mutual fund	Unit trust (property fund, REIT)	ETF
Open-end vs Closed-end	Close-end	Closed-end	Close-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange	Traded on exchange
Incorporated?	Contractual fund	Contractual fund	Contractual fund
M/S	99.08%	0.85%	0.07%

Cross-border fund trading

None

Fund standardization

- Common fund identifier code: Local proprietary code & ISIN format
- Use SWIFT fund message?: No

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	(plans on 2017, Fund Connext)

VIETNAM

- **Fund market AUM :** USD 4.95bn
- **Number of funds :** 22
- **Fund AUM to GDP ratio :** 3%

(as of the end of 2014)

CSD : Vietnam Securities Depository (VSD)

"Safekeeping Values, Earning Trust, Aiming High"

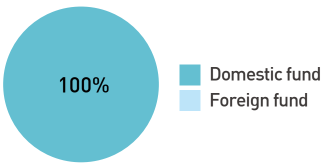
Website : www.vsd.vn

Fund Market Regulatory Framework

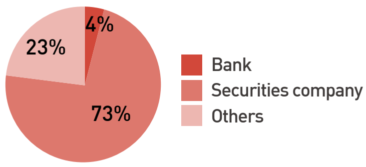
- **Regulation :** Securities Law
- **Regulator :** Ministry of Finance / State Securities Commission
- **Requirements for a public offering fund :** Solicit investment in a fund from 100 or more persons (raise at least USD 2.2mn of fund value)

Fund Market Features

Domestic vs foreign investment



Distribution channel



Fund structure	Open-end fund	Close-end fund
Open-end vs Closed-end	Open-end	Closed-end
Redeemable vs Traded on exchange	Redeemable	Traded on exchange
Incorporated?	Un-incorporated (unit trust)	Un-incorporated (unit trust)

Cross-border fund trading

None

Fund standardization

- Common fund identifier code: ISIN format
- Use SWIFT fund message?: No

CSD Fund Service

	Listed fund	Unlisted fund
Service coverage	√	√ [Open-ended Fund Management System]

Disclaimer

This report has been prepared for general guidance, and does not constitute professional advice.
This report compiles information provided by AFSF participants (13 national CSDs in Asia), and the KSD does not guarantee the accuracy or completeness of the data, nor confirm that they originate from official or certified sources. The KSD shall not be held accountable for any factual or statistical errors that may be found, and will not assume liability for any consequences of anyone acting in reliance of this report.

- **Data compilation and research :** AFSF regular participants (13 CSDs from 12 economies; list on page 10)
- **Analysis and report composition :** Korea Securities Depository
- **Design :** Design Stick
- **Date of publication :** December 2016

AFSF
Asia Fund Standardization Forum

For questions or inquiries, please contact :
afsf@ksd.or.kr