

2020/21 AFSF Report

Asia Fund Standardization Forum



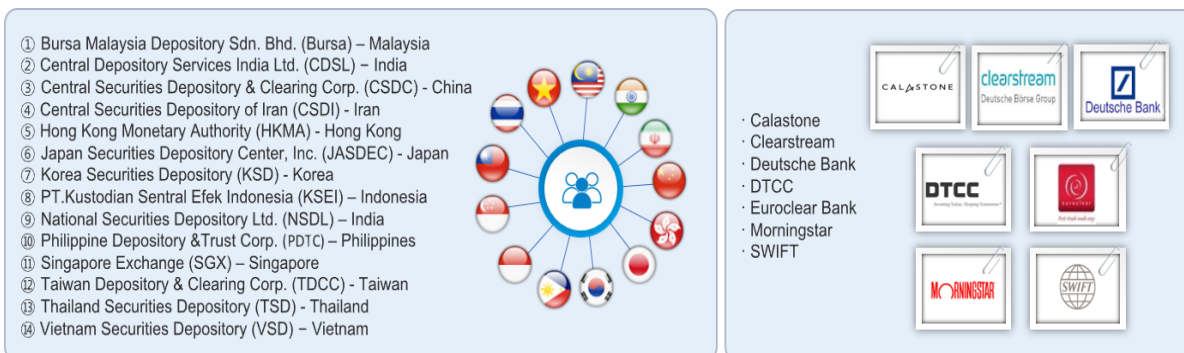
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I. Overview

1. About the Forum

The Asia Fund Standardization Forum (AFSF) has served as a consultative body for Asian CSDs in a quest for the post-trade harmonization of cross-border fund trading since its official launch in 2015 at the 19th ACG General Meeting following KSD's conceptual proposal at the 18th meeting. The Forum is comprised of 14 Asian CSDs and seven advisory members from the global fund service industry.



2. Rationale behind the Report

The 2020 March turmoil and its aftermath have been a wild ride of shock and improvisation. SARS-CoV-2 has forced us to break the mold and wade into an uncharted territory. As noted earlier in [the 2020/21 AFSF Interim Report](#) in February 2021, the yearly time frame for the Forum activities may not be fitting in this force majeure situation as the 5th Knowledge Sharing Workshop has been inevitably postponed to 2022. There seems to be no better time than now to pause and re-visit the period of 2020 and 2021 via this extraordinary report.

2020/21 AFSF Interim Report: Temporary Transition to Biennial Approach

b. General Theme

At the dawn of a new year, the Forum starts with an overarching theme that encompasses key issues and concerns regarding the post-trade processing of collective investment schemes in Asia, particularly from the perspective of regional CSDs. The usual workflow is to design a survey based on the annual theme, solicit feedback from members, and share and discuss the survey results during a knowledge sharing workshop. Since the outbreak of COVID-19, however, the inevitable postponement of the 5th Workshop has forced us to revisit our annual plan in a two-year time frame for the first time ever.

Against such a backdrop, this report sheds light on the post-trade barriers to the cross-border trading in Asia, which is the research topic of the Forum during 2020 and 2021, and share the results of the survey conducted under the theme “Cross-border Post-trade Barriers: *From Silos to Symphonies*”. Plus, the news and updates of regional CSDs are included in the “CSD Milestones” section of this report.

II. 2020/21 Survey

1. Background and General Theme

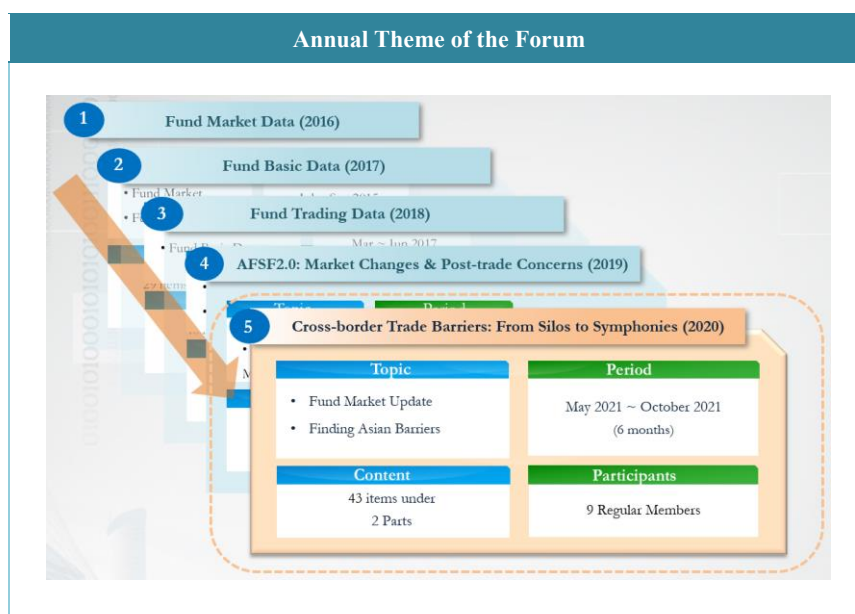
a. Background

“Working in silos” may not be the best phrase to describe the cross-border trading in Asia in the years to come. Asia is awakening with its regional fund markets expanding in size and opening up to cross-border trading. It is the fund passporting schemes that lie at the forefront of such market movements as evidenced by ASEAN Collective Investment Schemes (ASEAN CIS), APEC Asia Region Funds Passport (APEC ARFP) and the Mutual Recognition of Funds between Hong Kong and Mainland China (MRF).

A question we would have here is, “Will the cross-border trading in Asia be truly frictionless with no post-trade concerns?” If there can be a drag on the trading process, what would be the post-trade barriers we should be aware of and tackle? The 2020/21 AFSF Survey is meant to answer these questions.

b. General Theme

From 2020 to 2021, the Forum has taken a closer look at the possible post-trade barriers in Asia under a theme called “Cross-border Trade Barriers: *From Silos to Symphonies*”. Under the premise that fund trading will increasingly cross borders in Asia, the Forum has explored what in the post-trade space may undermine the trading experience (e.g. account structure, order processing, cut-offs, messaging, etc.) The format and contents of the survey are much inspired by the feedback from HKMA and CSDC regarding the MRF scheme, the questionnaire on the Giovannini barriers¹ circulated among EU member states in the early 2000s, and the suggestions from other CSD members and advisory members of the Forum.



¹ https://ec.europa.eu/info/publications/giovannini-reports_en

2. Architecture of Survey and Questionnaire

a. Objective

The survey intends to capture the latest market snapshots compared with the 2018 survey results and find post-trade barriers in Asia via operational mapping.

b. Outline

The survey was conducted from May to October 2021 with 43 questionnaire items under the two parts described below, involving nine CSD members (CSDC, CSDI, HKMA, JASDEC, KSEI, KSD, TDCC, TSD², and VSD).

- **Part I: Fund Market Update (26 items)**
 - Market Size (3 items)
 - Distribution (2 items)
 - Fund Type (2 items)
 - Fund Structure (1 item)
 - Trading Volume (9 items)
 - Central Processing Platform (7 items)
 - Fund Code Standardization (2 items)

- **Part II: Finding Asian Barriers (17 items)**
 - Account Management (1 item)
 - Order Processing (3 items)
 - Messaging (2 items)
 - Cut-off Time (1 item)
 - Net Asset Value (1 item)
 - Decimalization (1 item)
 - Reporting (1 item)
 - Reconciliation (2 items)
 - Business Days and Holidays (1 item)
 - Business Hours (1 item)
 - Tax Treatment (1 item)

² From 2020 onward, the Digital Access Platform (DAP) will be participating in the Forum activities on behalf of TSD.

3. Survey Results

a. Part I: Fund Market Update

This part of the survey captures the snapshot of the Asian fund market as we know it today based on the statistics from the end of 2020. Part I is intended to diagnose where the Asian fund industry stands today in comparison with the survey results in 2018³ and 2019⁴.

Market Size

- **Asset Under Management (AUM):** Asian fund markets have exponentially grown as demonstrated in Table 1. As of the end of 2020, the growth of fund market was most pronounced in Iran (\$80 bn, 441% ▲), followed by China (\$5.65 trillion, 217% ▲), Vietnam (\$19 bn, 92.5% ▲), Indonesia (\$57 bn, 72.7% ▲), Taiwan (\$292 bn, 50.5% ▲), Republic of Korea (\$577 bn, 36.9% ▲), Japan (\$2.50 tn, 35.1% ▲), Hong Kong (\$1.99 tn, 19.9% ▲), and Thailand (\$155.43 bn, 7.19% ▲), compared to the end of 2017.

[Table 1. Fund Market Size by AUM]

Economy	Total AUM of Fund Market	
	End of 2020	End of 2017
Iran	\$80 bn (441% ▲)	\$14.8 bn
China	\$5.65 tn (217% ▲)	\$1.78 tn
Vietnam	\$19 bn (92.5% ▲)	\$9.87 bn
Indonesia	\$57 bn (72.7% ▲)	\$33 bn
Taiwan	\$292 bn (Public funds only) (50.5% ▲)	\$194 bn
Republic of Korea	\$577 bn (36.9% ▲)	\$421.34 bn
Japan	\$2.50 tn (35.1% ▲)	\$1.85 tn
Hong Kong	\$1.99 tn ⁵ (19.9% ▲)	\$1.66 tn
Thailand	\$155.43 bn (7.19% ▲)	\$145 bn

- **The Ratio of AUM to GDP:** The growth of capital market tends to be in proportion to that of GDP. The Asian financial market has much room to grow given its AUM-to-GDP ratio merely standing at 50% – a stark contrast with the U.S. (140%) and Europe (143%).

Economy	Total AUM of Regulated Open-end Funds	GDP	AUM-to-GDP Ratio
U.S.	\$29.35 tn	\$15.19 tn	193%
Europe	\$21.8 tn	\$20.94 tn	104%
Asia-Pacific	\$8.8 bn	\$17.45 tn	50%

* Source: 2021 Investment Company Fact Book and World Bank

³ <https://www.acgcsd.org/showfile.ashx?id=67>

⁴ <https://www.acgcsd.org/showfile.ashx?id=87>

⁵ Including both funds domiciled in Hong Kong and abroad

As of the end of 2020, the AUM-to-GDP ratio sharply rose in Hong Kong (580%, 93%p▲), followed by China (36.3%, 22.8%p▲), Republic of Korea (39%, 9.6%p▲), Japan (47%, 9.1%p▲), Taiwan (42%, 8%p▲), Indonesia (5%, 1.75%p▲), Thailand (32%, 1%p▲), albeit falling in Vietnam (4.38%, 0.1%p▼) and Iran (2.6%, 65.3%p▼), compared to the end of 2017.

[Table 2. Fund Market Size by AUM-to-GDP Ratio]

Economy	AUM-to-GDP ratio	
	End of 2020	End of 2017
Hong Kong	580% (93%p▲)	487%
China	36.3% (22.8%p▲)	13.5%
Republic of Korea	39% (9.6%p▲)	29.4%
Japan	47% (9.1%p▲)	37.9%
Taiwan	42% (8%p▲)	34%
Indonesia	5% (1.75%p▲)	3.25%
Thailand	32% (1%p▲)	31%
Vietnam	4.38% (0.1%p▼)	4.48%
Iran	2.6% (65.3%p▼)	7.5%

- **The Number of Funds:** Funds tend to surge in number in the initial or transformative phase of market development. The number of funds may rise or fall for numerous reasons (e.g. investor sentiment, streamlining of fund products, unexpected market events, etc.). As of the end of 2020, the number of funds soared most in China (104,731, 2,109%p▲), followed by Indonesia (3,143, 100%p▲), Japan (13,498, 12%p▲), Republic of Korea (14,346, 12%p▲), Taiwan (1,991, 8%p▲), Thailand (1,616, 6%p▲), Iran (179, 4%p▲), albeit slightly dipping in Hong Kong (2,194, 0.9%p▼).

[Table 3. Fund Market Size by Number of Funds]

Economy	Number of Funds	
	End of 2020	End of 2017
China	104,731 (2,109%p▲)	4,742
Indonesia	3,143 (100%p▲)	1,568
Vietnam	57 (58%p▲)	36
Japan	13,498 (12%p▲)	12,052
Republic of Korea	14,346 (12%p▲)	12,848
Taiwan	1,991 (8%p▲)	1,845
Thailand	1,616 (6%p▲)	1,529
Iran	179 (4%p▲)	172
Hong Kong	2,194 ⁶ (0.9%p▼)	2,215

⁶ There are 2,194 funds in Hong Kong as of 31 Dec 2020 in terms of both Hong Kong and non-Hong Kong domiciled authorized funds.

- **Trading Volume by Fund Type:** Table 4 demonstrates how Asian funds have shifted among various products in response to market movements.

[Table 4. Trading Volume by Fund Type]

Economy	Equity Fund	Bond Fund	Mixed Fund ⁷	MMF	FoF	Others
China	12%	16%	25%	46%	-	1% ⁸
Hong Kong*	23.46%	18.64%	8.15%	3.70%	10.86%	35.19%
Indonesia	15%	17%	-	12%	-	56% ⁹
Iran	40%	48%	-	11%	-	1%
Japan	87%	7%	-	-	-	6% ¹⁰
Republic of Korea	28%	16%	-	6%	37%	13%
Taiwan ¹¹	24%	30%	8%	13%	-	25%
Thailand	15%	33%	%	7%	23%	22%
Vietnam	Data Unavailable					

* Only HK-domiciled authorized funds are applied. Non-HK domiciled authorized funds are excluded.

- **Public vs. Private Funds:** Table 5 demonstrates the number of publicly-offered funds and privately-placed funds. The huge increase in the number of funds does not necessarily guarantee the sizeable growth of funds as indicated below. If there are too many funds with stagnant track records, it is recommendable to trim the fat and focus on the qualitative growth of promising funds.

[Table 5. Number of Public and Private Funds]

Economy	Public Fund	Private Fund
China	4,651 funds (\$3.05 tn, 54%)	96,818 funds (\$2.60 tn, 46%)
Japan	5,982 Funds (\$14,585 bn, 58%)	7,516 Funds (\$10,448 bn, 42%)
Republic of Korea	4,651 funds (\$253 bn, 38%)	9,695 funds (\$407 bn, 62%)
Thailand	1,428 Funds (\$142.50 bn, 91.68%)	188 Funds (\$12.93 bn, 8.32%)
Taiwan	1,991 funds (\$292 bn)	Data Unavailable
Indonesia ¹²	1,136 Funds (\$30 bn, 53%)	1,430 Funds (\$27 bn, 47%)
Hong Kong*	\$ 184.487 bn	Data Unavailable
Iran	179 funds (\$80 bn, 100%)	Data Unavailable
Vietnam	Data Unavailable	

* Only HK-domiciled authorized funds are applied. Non-HK domiciled authorized funds are excluded

⁷ It was variously referred by CSD members to as “mixed funds”, “mingled funds”, or “balanced funds”.

⁸ QDII fund

⁹ Discretionary Fund: 23%, Capital Protected Fund: 18%, Private Equity Fund: 4%, Mixed Asset Fund: 3%, ETF: 2%, Global Fund: 2%, Real Estate Investment Trust: 1%, Index Fund: 1%, Infrastructure Fund: 1%

¹⁰ REITs and others

¹¹ TDCC does not have data on domestic trading volume. The figures described herein refer to inbound trading only.

¹² Based on active funds with available Asset Under Management data

Distribution

- **Main Channel of Distribution:** Funds can be manufactured and directly distributed by asset management companies. However, in many cases, asset management companies choose to minimize its in-house distribution channels and authorize a third-party distributor to offer their fund products more efficiently for the sake of the professional division of management and distribution. Among the respondent economies, the most dominant distribution channel is found to be direct sales, followed by broker-dealers and banks as seen in Table 6 and 7.

[Table 6. Main Channel of Distribution]

Economy	Main Distribution Channel
China	Direct sales ¹³
Indonesia	Direct sales
Iran	Direct sales
Republic of Korea	Broker-dealers
Vietnam	Broker-dealers
Thailand	Direct sales, Broker-dealers
Hong Kong	Banks ¹⁴
Japan	Banks
Taiwan	Banks and Direct sales

[Table 7. Trading Volume by Distribution Channel]

Economy	Bank	Broker-dealer	Direct Sales	Insurance Company	Others
China	\$ 719 bn (23.59%)	\$231 bn (7.59%)	\$ 1.75 tn (57.29%)	-	\$351 bn (11.53%)
Indonesia	\$10 bn (23%)	\$0.57 bn (1%)	\$32 bn (75%)	-	\$0.464 bn (1%) ¹⁵
Japan	46%	-	3%	-	51%
Republic of Korea	\$72 bn (39%)	\$102 bn (56%)	-	\$4 bn (2%)	\$6 bn (3%)
Taiwan ¹⁶	\$37 bn (52%)	\$5 bn (8%)	\$28 bn (40%)	-	-
Vietnam	\$0.24 bn (0.2%)	\$2.23 bn (99.8%)	-	-	-
Hong Kong	Data Unavailable				
Iran	Data Unavailable				
Thailand	Data Unavailable				

¹³ “Direct sales” refers to funds directly sold to investors by asset management companies.

¹⁴ HKMA does not have exact statistics in this regard. The closest estimation since 2013 is that 78% of retail funds are distributed through banking sector, 19% through insurance company while the remaining 3% through brokers and agents. (Source: PricewaterhouseCoopers quoted in SFC’s RIM report 2015)

¹⁵ Fintech-based selling agents

¹⁶ TDCC does not have data on domestic trading volume. The figures described herein refer to inbound trading only.

Fund Structure

- **Unit Trust vs. Investment Company:** Asia has not changed much since the earlier research of the Forum in terms of fund structure. Except for Thailand, unit trust still remains to be the most dominant form of funds in Asia.

[Table 8. Market Landscape by Fund Structure]

Economy	Unit Trust	Investment Company
China	100%	0%
Indonesia	100%	0%
Taiwan	100%	0%
Vietnam	100%	0%
Iran	100%	0%
Republic of Korea	98.6%	1.4%
Japan	94.9%	5.1%
Thailand	2.04%	97.96%
Hong Kong ¹⁷	Data Unavailable	

Trading Volume

- **Domestic Trading:** Table 9 demonstrates the trading volume of domestic public funds in each of respondent economies. The breakdown details of trading volume per fund asset type (domestic vs. overseas) were not fully collected since some CSDs do not have such information in their database.

[Table 9. Domestic Trading Volume]

Economy	Trading Volume of Domestic Public Funds	
	Domestic Assets	Overseas Assets
China	\$3.04 tn	\$12.05 bn
Republic of Korea	\$198 bn	\$43 bn
Thailand	\$62.57 bn	\$92.86 bn
Indonesia	\$56 bn	\$ 0.892 mn
Iran	\$80 bn	Data Unavailable
Hong Kong	Data Unavailable	
Japan	Data Unavailable	
Taiwan	Data Unavailable	
Vietnam	Data Unavailable	

¹⁷ Securities & Futures Commission of Hong Kong (SFC) registered 10 OFCs during the year ending 31 March 2021, including the first unlisted public OFC. It also approved the establishment of a number of OFC sub-funds, including five authorised ETFs.

- **Cross-border Trading¹⁸:** Table 10 demonstrates the cross-border trading volume of each respondent economy.

[Table 10. Cross-border Trading Volume]

Economy	Cross-border Trading			
	Inbound		Outbound	
	No. of Fund	Trading Volume	No. of Fund	Trading Volume
China ¹⁹	27	\$2.64 bn	22	\$8.26 bn
Hong Kong ²⁰	1,384	\$1.81 tn	Data Unavailable (MRF: 29 funds)	Data Unavailable (MRF: \$5.82 bn)
Republic of Korea	648 funds	\$29 bn	0	0
Taiwan	1,011 funds	\$70 bn	0	0
Thailand	0	0	1	Data Unavailable
Vietnam	Data Unavailable	\$28.5 bn	Data Unavailable	
Indonesia ²¹	Data Unavailable			
Japan	Data Unavailable			
Iran	-	-	-	-

- **Fund Passport:** Table 11 demonstrates the volume of the cross-border trading driven by Asian passport schemes and mutual recognition of funds (e.g. ARFP, ASEAN CIS, and MRF). According to the recent meeting of the ARFP Joint Committee (JC), a New Zealand asset management company is gearing up for launching the first ARFP passport targeting the Japanese market as the host economy.

[Table 11. Passport-driven Trading Volume]

Economy	Outbound Trading Volume by Passporting Scheme		
	ARFP	ASEAN CIS	MRF
China	-	-	North-bound: 27 funds, \$2.64 bn South-bound: 22 funds, \$8.26 bn
Hong Kong	-	-	North-bound: 29 funds, \$5.82 bn South-bound: 50 funds ²² , \$206 mn
Japan	0	-	-
Republic of Korea	0	-	-
Thailand	0	Data Unavailable	Data Unavailable
Indonesia	-	-	-
Iran	-	-	-
Taiwan	-	-	-
Vietnam	-	-	-

¹⁸ Inbound trading is defined herein as “foreign-domiciled funds sold at home” while outbound trading is as “home-domiciled funds sold abroad”.

¹⁹ CSDC provided MRF-related data only.

²⁰ For the period of year 2020, the outbound trading volume under the Mainland-Hong Kong MRF scheme was US\$5,815 million in terms of capital flow to and from Mainland. HKMA does not have the full data on other outbound business. Under the Mainland-Hong Kong MRF scheme, 29 Hong Kong domiciled funds under the MRF scheme authorized by the CSRC as of 31 Dec 2020. Same as Q13, no statistics for other outbound markets.

²¹ As of End of December 2020, the fund ownership under foreign investors reached IDR 16,116,147,736,737 or an equivalent of USD 1,136,899,131 (1 USD = IDR 14,175.33). Note that foreign unit holder data gathered in S-INVEST does not specify whether the investment was done via fund offering abroad or that the foreign investor is currently residing in Indonesia and invests locally.

²² Under the Mainland-Hong Kong MRF scheme, 50 Mainland MRF funds had been authorized by the SFC as of 31 Dec 2020.

Central Processing Platform

- **CSD-run vs. Private:** The majority of respondent economies pursue a CSD model in which the post-trade operations for fund trading are mostly processed by a CSD-run platform as in the case of S-Invest of KSEI (100%), FundNet of KSD (100%), FundReg of CSDI (100%) and Fund Services of VSD (90%).

In Taiwan and Thailand, despite the presence of central platforms (Fundclear and FundConnex), post-trade operations are mostly processed by market players (95% and 90%, respectively).

CDEP of CSDC²³ simply receives and records transactional data after order routing and settlements are all processed by market participants.

BETS of JASDEC can settle trades and record transactional details while orders are mostly processed by the private vendor system developed and used by market participants.

HKMA has long gravitated towards a TA model. Despite having a platform called FORS, HKMA does not mandate the use of the platform and it is not known how high the processing rate of the platform is.

In Vietnam, it is optional to use VSD's Fund Services System which processes 90% of domestic fund trading. There are two private platforms run by Standard Chartered Bank and HSBC respectively.

[Table 12. CSD-run Platform and Private Platform]

Economy	CSD-run Platform			Private Platform
	O/X	Name	Mandatory? (Processing Rate)	O/X
Indonesia ²⁴	O	S-Invest	Mandatory (100%)	X
Republic of Korea	O	FundNet	Mandatory (100%)	X
Iran	O	FundReg	Optional (100%)	X
Vietnam	O	Fund Services System	Optional (90%) * 10% processed by market players	O
Thailand	O	FundConnex	Optional (10%) * 90% processed by market players	X
Taiwan	O	Fundclear	Optional (5%) * 95% processed by market players	X
China	O	Central Data Exchange Platform (CDEP)	Mandatory (0%) * 100% processed by market players * Mandatory to collect and record trading results as back-up data	X
Hong Kong	O	CMU Fund Order Routing System (FORS)	Optional (Percentage Data Unavailable)	O
Japan	O	Book-entry Transfer System (BETS)	Optional (Percentage Data Unavailable)	O (e.g. Private Vendor Financial Network System)

²³ Fund trading in the Mainland China is processed by TAs. After processing, the results are sent to the Central Data Exchange Platform (CDEP) of CSDC for data backup.

²⁴ It is mandated by the local law called Regulation of Financial Service Authority (OJK) Number 28/POJK.04/2016 concerning Integrated Investment Management System (S-INVEST)).

- **Platform Linkage for Cross-border Trading:** Although it is not impossible to do business directly with TAs in target markets, CSDs mostly choose to link up their platform with ICSDs or other global service providers which serve as a pivotal hub connecting and communicating with foreign TAs as shown in Table 13.

[Table 13. Platform for Cross-border Trading]

Economy	Platform for Cross-border trading?	Scope of Service
China	As for Mainland China MRF, CSDC is linked with CMU, Calastone and ICBC.	Order Routing & Settlement
Hong Kong	CMU Fund Order Routing Service (FORS) Platform is connected with Financial Data Exchange Platform (FDEP) to achieve STP of cross border transactions.	Order Routing & Settlement
Republic of Korea	FundNet is linked with Euroclear and Clearstream	Order Routing & Settlement
Taiwan	Fundclear is linked with BBH and Calastone	Order routing only
Thailand	FundConnex is linked with Clearstream	Order Routing & Settlement
Indonesia	-	-
Japan	-	-
Vietnam	-	-
Iran	-	-

- **Scope of Platform Functions:** CSD-run platforms may offer services for subscription and redemption only or even support asset management with additional post-trade services.

[Table 14. Functions of CSD-run Platforms]

Economy	Scope of Platform Functions
China	Post-settlement Data Storage - Data backup for trading results shared by TAs
Indonesia	Subscription and Redemption - Order processing - Settlement of orders - Management of participant accounts - Corporate action processing (Distributed income of funds: Reinvestment or cash) Post-trade Service for Asset Management - Confirmation and matching of trade (buy or sell) - Delivery of management instruction
Japan	Subscription and Redemption - Settlement of orders - Management of participant accounts Post-trade Service for Asset Management - Settlement of trades
Republic of Korea	Subscription and Redemption - Order processing - Settlement of orders - Management of participant accounts - Corporate action processing - Etc.

	Post-trade Service for Asset Management <ul style="list-style-type: none"> - Confirmation and matching of trade (buy or sell) - Delivery of management instruction - Settlement of trade - Management of participant accounts - Corporate action processing - Etc.
Taiwan	Subscription and Redemption <ul style="list-style-type: none"> - Order processing - Settlement of orders - Management of participant accounts - Corporate action processing
Thailand	Subscription and Redemption <ul style="list-style-type: none"> - Order processing - Settlement of orders - Management of participant accounts - Corporate action processing
Vietnam	Subscription and Redemption <ul style="list-style-type: none"> - Order processing - Settlement of orders - Management of participant accounts - Corporate action processing - Etc.
Iran	Unitholder registration <ul style="list-style-type: none"> - Management of participant accounts
Hong Kong	Subscription and Redemption <ul style="list-style-type: none"> - Order processing - Cash settlement through RTGS system

Fund Code

- **Fund Code Standardization:** Most of the respondent economies use common codes for fund trading. Hong Kong, Indonesia, and Japan use ISO-compliant common codes as described in Table 15.

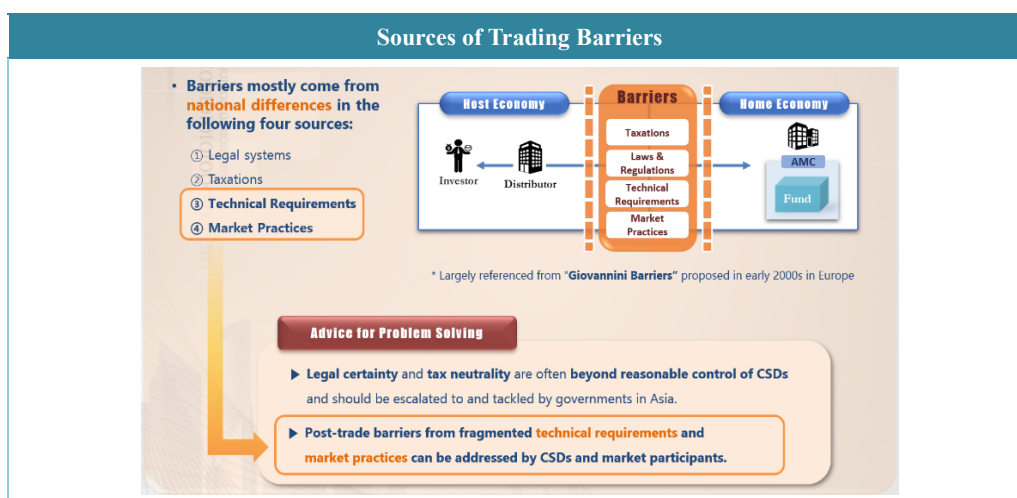
• [Table 15. Common Codes and Compliance with ISO Standards]

Economy	Common Code		Note
	O/X	ISO-compliant?	
Hong Kong	O	O	-
Indonesia	O	O	As a member of the Association of National Numbering Agencies (ANNA), KSEI has the responsibility to generate ISIN Code for all securities, including mutual funds. Also, KSEI as S-INVEST provider will generate local codes. Both codes are fund identifiers but not mainly used as the identifiers for fund trading. As for ETFs, the trading ticker code is created by IDX (Indonesia stock exchange)
Japan	O	O	-
China	O	X	-
Taiwan	O	X	For domestic funds, fund ID numbers are used as common codes, not ISINs. As for foreign-domiciled funds, the fund code provided by the master agent is used.
Thailand	O	X	-
Republic of Korea	O	X	Common codes are used by KSD to identify both listed and unlisted funds. But the codes are not ISO-compliant.
Vietnam	△	△	Common codes are used for ETFs and closed-end funds (listed on Exchange). As for open-end funds, proprietary codes are used. ISIN codes are only used for ETFs and closed-end funds.
Iran	X	X	-

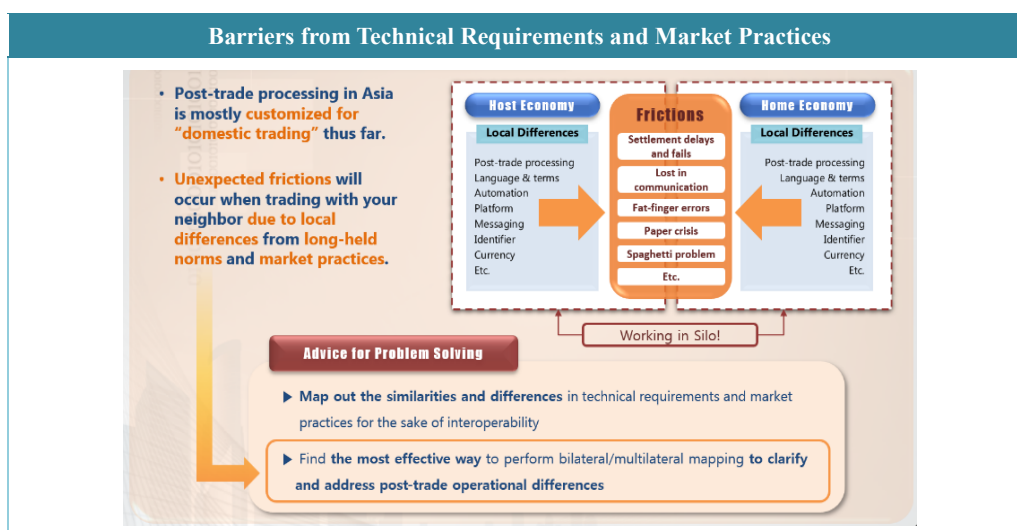
b. Part II: Finding Asian Barriers

This essential part of the survey intends to elucidate what stands in the way when trades cross borders in Asia by taking a closer look similarities and differences of respondent economies via post-trade operational mapping.

As proven in Europe's experience of identifying so called Giovannini Barriers²⁵ in early 2000s, the chronic barriers to cross-border trading mostly come from national differences in four sources: ① laws & regulations, ② taxations, ③ technical requirements, and ④ market practices. The Forum narrows down its research focus on post-trade barriers emanating from the lacking harmonization in technical requirements and market practices since legal certainty and tax neutrality cannot be achieved without inter-governmental negotiations and deals.



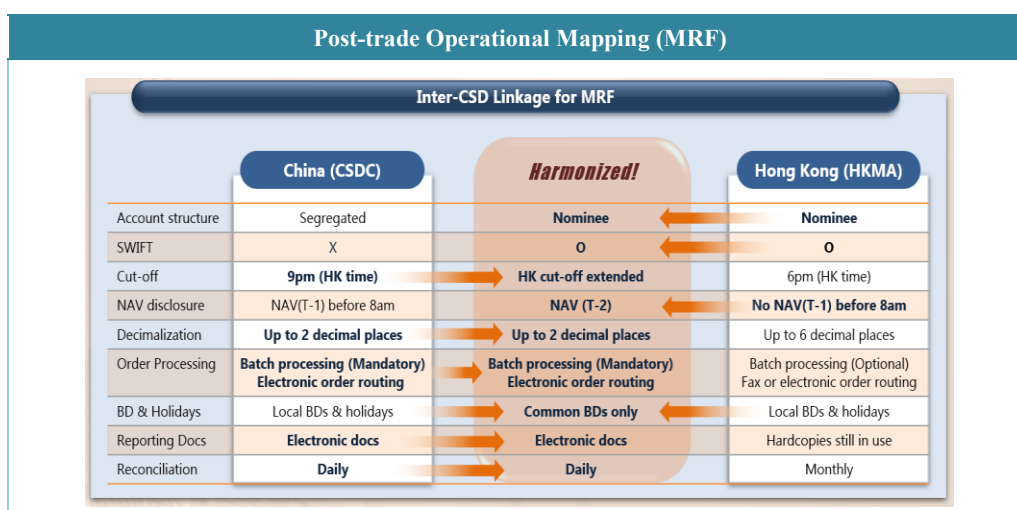
In Asia, post-trade operations are mostly customized to domestic trading with little consideration for inbound and outbound trading. Given such fragmented silos, what works well in one economy may cause unexpected frictions in another economy in the context of cross-border trading due to national differences in technical requirements and market practices.



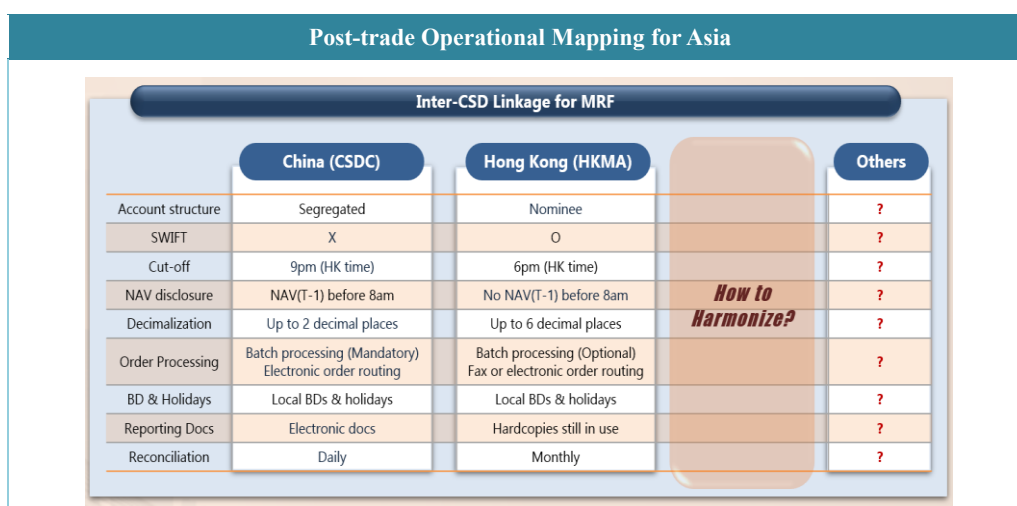
²⁵ https://ec.europa.eu/info/publications/giovannini-reports_en

Asia needs to break the mold and come out of silos in order to facilitate cross-border trading in the region. For this, the essential prerequisite is to identify national differences and the source of inefficiencies in post-trade space via inter-CSD operational mapping. The MRF between China and Hong Kong is a good case in point. After the inception of MRF, both economies thoroughly mapped out their operations and the mapping results greatly helped both economies meet halfway for the harmonization of northbound and southbound trading.

For instance, CSDC had to adopt nominee accounts, SWIFT messaging and T-2 based NAV disclosure in order to link up with HKMA while HKMA had to walk in step with CSDC by extending its cut-off schedule, limiting its quoting system to two decimal places, mandating the use of electronic documents, electronic order routing and batch processing, and performing reconciliation on a daily basis. Plus, both economies agreed to confine trading days to common business days only, effectively excluding each other's holidays. CSDC and HKMA have responded that MRF fund trading is very much free from post-trade frictions.



The Part II of the 2020/21 survey puts Asian CSDs on the same page to compare and contrast their post-trade operational details to clarify the room for harmonization and find solutions for frictionless cross-border trading. From the next page, the author demonstrates how respondent economies are similar or different in terms of account management, order processing, messaging, cut-off time, NAV disclosure, decimalization, reporting, reconciliation, business days & hours, and tax treatment.



Account Management

- **Nominee vs. Segregation:** More than half of the respondent economies allow for nominee account structure while some economies only rely on segregated accounts. As in the case of MRF, it may be necessary to consider using nominee accounts for cross-border trading.

[Table 16. Account Structure]

Economy	Nominee	Note
Republic of Korea	O	All beneficiary certificates are registered under the ultimate unit holder's name in the account book of distributors while the total sum of units are usually recorded in the account book of KSD. Only when it comes to rare occasions like unit holder's meeting, holdings are recorded in the name of ultimate unit holders in KSD's account book.
Taiwan	O	Beneficiary certificates are registered under the ultimate unit holder's name when the funds are sold directly from the asset manager. If the funds are sold via bank channel, it's nominee structure. Either way, the accounts are under the book of TDCC.
Japan	O	All accounts are registered under the name of registrar (CSD, TA, etc.) as nominee.
Hong Kong	O	For the fund orders routing via CMU platform, the accounts are normally registered under the name of registrar as nominee (Tier 2). However, no holding of investment fund units is recorded in the CMU system.
Thailand	O	Both nominee and segregated account structure are in place.
China	△	As for domestic trading, all accounts are registered under ultimate unit holder's name. However, China has adopted nominee account structure for MRF trading.
Vietnam	X	All accounts are registered under ultimate unit holder's name.
Indonesia	X	All accounts are registered under ultimate unit holder's name.
Iran	X	All accounts are registered under ultimate unit holder's name.

Order Processing

- Order processing is mostly automated in respondent economies. It seems recommendable to expedite order processing by moving away from a single batch (or multiple batches) to real-time order routing. As in the case of MRF, it needs to be reconsidered if the batch processing should remain optional or become mandatory depending on the host economy requirements.

[Table 17. Automation and Batch Processing for Order Treatment]

Economy	Automation	Batch Processing	Note
China	O	<ul style="list-style-type: none"> • Mandatory • Single batch 	Order routing is fully automated via platform. All orders are routed via single batch processing.
Indonesia	O	<ul style="list-style-type: none"> • Optional • One-by-one 	Order routing is fully automated on platform via file uploading and downloading. SFTP Procedures is currently under development.
Republic of Korea	O	<ul style="list-style-type: none"> • Optional • Real-time 	Order routing is fully automated by FundNet. Once placed into FundNet, all orders are automatically routed from distributor to asset manager via the central platform in a real-time manner. Batch processing is not mandatory. Plus, batch processing is not needed for order routing from distributors to the fund side since order routing is done on a real-time basis. Once a distributor places an order in FundNet, the corresponding asset manager can immediately confirm the receipt of the order via FundNet.

Taiwan	O	<ul style="list-style-type: none"> • Optional • One-by-one 	-
Hong Kong	O	<ul style="list-style-type: none"> • Optional • Real-time 	Fund order routing is fully automated via CMU FORS. All orders are automatically routed from distributors to transfer agents/fund houses. CMU receives the fund orders from distributors by batch processing and then routes the orders to transfer agents on a real-time basis. Moreover, CMU receives the fund orders' acknowledgement and confirmations from transfer agents and further passes to the designated distributor on a real-time basis. CMU routes the fund orders on a real-time basis instead of batch processing.
Vietnam	△	<ul style="list-style-type: none"> • Mandatory • Single batch or one-by-one 	On the Fund Services platform, distributors and asset managers can process orders via STP or manually. Orders are routed via single batch processing in case of STP order processing. As for manual order processing, orders are routed on a one-on-one basis.
Japan	△	<ul style="list-style-type: none"> • Optional • Depending on funds 	Order routing is partially automated via platform while the rest is manually handled via emails, faxes, etc.
Thailand	△	<ul style="list-style-type: none"> • Optional • Multiple batches 	Order routing via FundConnex is fully automated. However, as FundConnex is not the only channel for order routing, some orders are still being handled manually. Speaking for FundConnex, orders are sent to DAP from distributors real-time and then sent by FundConnex to AMCs in batch. However, for other channels, it depends on the service agreement between AMCs and distributors. Batch processing is not mandatory. FundConnex goes through nine rounds of batch processing depending on the fund cut-off time.
Iran	X	<ul style="list-style-type: none"> • Optional • Single batch 	The structure of funds in Iran is in a way that the fund itself carries out both distribution and management of assets and there is no other separate entity as distributor anymore. Subscription and redemption are both conducted by the fund and the information will then be sent to CSDI to be registered in the platform.

Messaging

- **ISO Compliance:** Most of the respondent economies rely on local codes for domestic trading and have begun to become partially or fully ISO-compliant when it comes to cross-border trading. As for inbound or outbound trading, it is strongly recommendable to adopt ISO-compliant messaging or at least to develop a system to translate between local codes and SWIFT codes.

[Table 18. ISO Compliance of Messaging]

Economy	ISO Compliance		Note
	Domestic	Cross-border	
Japan	△	△	Combination of both SWIFT and local messages are used.
Hong Kong	△	△	As for domestic trading via CMU FORS, SWIFT messaging is one of the channels for domestic trading. As for MRF via CMU FORS, SWIFT messaging is one of the channels for cross-border trading with local users. Once the local instructions are sent from domestic market participants, CMU FORS will convert them into readable format for mainland users, vice versa.
Republic of Korea	X	O	As for domestic trading, trade instructions are communicated with either manual key-ins on FundNet (as for subscription/redemption) or non-ISO compliant local messages called CCF, or Computer-to-Computer Facility, (as for post-trade support for management). As for cross-border trading, instructions are mostly communicated via SWIFT messages. (Some are

			communicated via fax and email). Once the local messages (CCF) are sent from domestic market participants, KSD's FundNet translates them into SWIFT messages before shooting them to overseas institutions. The vice versa is also true when overseas market participants send SWIFT instructions to KSD (translated into CCF).
Thailand	X	△	As for FundConnex, SWIFT is used solely for cross-border trading. For other distributors, DAP does not know whether AMCs, custodians, or other participants use SWIFT or not. DAP assumes market participants may be using some interfaces.
China	X	△	CSDC does not use SWIFT messages, but local messages. As for MRF, CSDC has adopted SWIFT messaging.
Taiwan	X	X	-
Vietnam	X	X	VSD does not use SWIFT messages, but local messages.
Indonesia	X	X	Currently there is no cross-border trading handled in S-INVEST
Iran	X	X	CSDI uses local messaging.

Cut-off Time

- **Cut-off for Order Routing:** The cut-off time ranges from 3pm to 6pm (and even to T-1). It is necessary to rethink the cut-off for order routing when it comes to cross-border trading. As in the case of MRF, if there is a huge gap between cut-offs, trading economies need to make proper adjustments.

• [Table 19. Cut-off by Economy]

Economy	Cut-off (Local Time)	Note
Vietnam	T-1	Exact time for cut-off depends on funds.
China	3 pm	In Mainland China, the cut-off time for order processing is 3pm in local time.
Iran	3 pm	-
Thailand	3:30 pm	-
Indonesia	4 pm	-
Taiwan	5 pm	The cut-off time for order processing is 5pm in local time.
Republic of Korea	6 pm	In Korea, the cut-off time for order processing is 6pm in local time. Distributors should place their orders in FundNet before 6pm.
Hong Kong	6 pm	As for domestic trading, the operating hour for CMU FORS is from 8:30 am to 6:00 pm.
Japan	-	It depends on funds.

NAV Disclosure

- In more than half of the respondent economies, the T-1 NAV is available in the trade day (TD), preferably in the morning before or at 9am. Unless required otherwise by the fund, there needs to be a standard or harmonized schedule for NAV disclosure when it comes to cross-border trading.

[Table 20. NAV Disclosure Timing]

Economy	NAV Disclosure (T-1 NAV)	Note
Republic of Korea	By 7am (TD)	In Korea, if today is the trading day (TD), yesterday's NAV (T-1) is available at 7am in the morning.
China	By 8am (TD)	-
Iran	By 8am (TD)	-
Thailand	By 9am (TD)	-
Indonesia	By 9am (TD)	Before 9am of TD. Custodian bank should report NAV to media on T-1 night (around 7.30pm) so that the media will be able to publish the NAV on the morning newspaper/other media outlets on TD
Vietnam	TD	Although NAV will be available in TD, the exact time for disclosure depend on funds.
Taiwan	-	In Taiwan, there is no regulation on when the NAV shall be reported.
Hong Kong	-	In Hong Kong, the announcement date of NAV (T-1) is stated in the fund documents.
Japan	-	The exact time for NAV disclosure depends on funds.

Decimalization

- Among the respondent economies, the decimal point for unit valuation ranges from two to six while it is not allowed in Iran and the Republic of Korea. Although there must be understandable legal backgrounds for such generous decimalization or outright restriction, the economies engaging in cross-border trading need to revisit their decimal scheme for the sake of harmonization.

[Table 21. Decimalization by Economy]

Economy	Decimalization	Note
Vietnam	Up to 2 decimals	-
Thailand	Up to 4 decimals	-
Indonesia	Up to 4 decimals	-
Taiwan	Up to 6 decimals	-
Hong Kong	Up to 6 decimals	CMU FORS can support up to 6 decimal places for unit valuation.
China	Up to 8 decimals	-
Japan	-	Decimalization depends on funds.
Republic of Korea	X	Decimal place is not used for unit valuation (one unit is KRW1 when first issued). Every unit is only counted as whole number and it is unallowed to break down one unit into smaller decimals.
Iran	X	Decimal place is not used for unit valuation.

Reporting

- Most of the respondent economies allow for the use of both paper and digital documents for the purpose of reporting while every document should go paperless in China and Iran. In the course of cross-border trading, if paper documents are not accepted, you need to negotiate with your trading economy for mutually beneficial solutions.

• [Table 22. Accepted Form of Documents]

Economy	Document Sharing		Note
	Paper	Digital	
China	X	O	Only electronic documents are accepted.
Iran	X	O	Only electronic documents are accepted.
Vietnam	O	O	It depends on funds.
Thailand	O	O	-
Indonesia	O	O	-
Taiwan	O	O	As for public funds, asset managers can upload fund information onto Fundclear. And distributors and investors could access the information in digital format on Fundclear.
Hong Kong	O	O	It depends on the mutual agreement between the distributors and the transfer agent. For MRF inbound trading arrangement, information about processing of fund account position reconciliation document (05), dividend information document (06), fund information document (07) for mainland funds are transmitted from ChinaClear to Hong Kong distributors in a digital format via CMU FORS system
Japan	O	O	-
Republic of Korea	O	O	As for public funds, asset management reports are sent to investors via mail or email. Due to latest legal changes, before the end of 2021, the asset management reports are expected to be also available for the retail investors holding units of private funds.

Reconciliation

- In the respondent economies, trade-related balance is mostly reconciled on a daily basis and the institution responsible for reconciliation varies depending on economy (e.g. custodian/trustee, distributor, asset manager, CSD, and TA). Given the market practice, the reconciliation for cross-border trading is likely to be readily harmonized.

• [Table 23. Responsible Institution and Frequency of Reconciliation]

Economy	Reconciled by	How Often?	Note
Indonesia	Custodians	Daily	-
Taiwan	Distributors Asset managers	Daily	-
Japan	Distributors Asset managers Trustees CSD	Daily	-
Republic of Korea	Trustees	Daily	Trustees should reconcile their balance with the one they see in the balance records of FundNet. Distributors (1st tier Account Management Institution) should reconcile their balance with the one they see in the FundNet balance records of KSD (2nd tier account management institution) on a daily basis.

China	TAs Asset managers	Daily	-
Thailand	TAs	Daily	-
Iran	Asset managers	Daily	-
Vietnam	Asset managers	Each trading session of fund	-
Hong Kong	TAs	-	TAs are responsible for the reconciliation of cash/ securities balance. Reconciliation frequency depends on the mutual agreement between distributors and TAs.

Trading Days

- Based on the responses below, respondent economies will have little trouble with trading day for cross-border trading since most of them are willing to harmonize it to common business days only, instead of operating during their holiday in order to respect the business day of their trading economy.

• [Table 24. Trading Day for Cross-border Trading]

Economy	Trading Day (Cross-border)	Note
Taiwan	Common BDs only	-
Japan	Common BDs only	-
Republic of Korea	Common BDs only	As for KSD, we only open for common business days to support cross-border fund trading.
China	Common BDs only	-
Thailand	Common BDs only	-
Vietnam	Common BDs only	-
Hong Kong	Common BDs only	As for MRF, CMU only opens for common business days (Hong Kong & Mainland).
Indonesia	Undecided	Currently there is no cross-border trading in Indonesia. However, in case cross border-trading is available in the future, further analysis needed to decide the business day
Iran	Undecided	-

Business Hours

- The respondent economies should at least take into account the differing time zones and business hours when engaging in cross-border trading as it is not feasible to change the long-established operating hours.

• [Table 25. Business Hour by Economy]

Economy	Business Hours	Willing to change? (Cross-border)	Note
Taiwan	8:30am-5:30pm	No	The responsible department of TDCC usually opens from 8:30am to 5:30pm.
Hong Kong	8:30am-6pm	Yes	The operating hour for CMU FORS is from 8:30 am to 6:00 pm on Hong Kong business day. The operating hour is extended to 11:59pm only for MRF.

Vietnam	8am-5pm	Undecided	There is no cross-border trading yet.
Indonesia	8am-5pm	Undecided	The responsible department of KSEI usually opens from 8am to 5pm.
Thailand	8:30am-5pm	No	-
Republic of Korea	9am-6pm	No	The responsible department of KSD usually opens from 9am to 6pm and has no plan to change its 9-to-6 work schedule yet.
China	8:30am-5pm	No	Some duty personnel may work from 5pm to 8:30am.
Japan	9am-5pm	No	-
Iran	9am-5pm	Undecided	-

Tax Treatment

- **Tax Withholding Agent:** It seems that there is no fixed rule about who should be in charge of tax withholding since market practices greatly vary (e.g. asset manager, TA, distributor, custodian/trustee, etc.). It remains to be seen whether the market naturally chooses the responsible institution for tax treatment or it will be decided by the state regulators.

[Table 26. Tax Withholding Agent]

Economy	Tax Withholding Agent		Note
	Domestic	Cross-border	
Thailand	TAs Distributors	TAs	-
China	Listed companies, Bond issuers, Banks		For the dividends and bonus shares obtained by the fund, the interest income of bonds and savings deposits, listed companies, bond-issuing companies and banks need to withhold and pay 20% personal income tax when paying the above income to the funds; Personal income tax and corporate income tax are temporarily not levied on the income obtained by investors from fund distribution.
Japan	Distributors	Distributors	-
Republic of Korea	Trustees	Undecided	As for domestic trading of funds, it is trustees that perform tax withholding duties on the fund profits belonging to end-investors. As for outbound trading of home-domiciled funds, it is undecided yet who will do the tax withholding on fund profits belonging to the foreign distributor and end-investors.
Hong Kong	TAs	N/A	TAs are responsible for the job of tax withholding on fund profits. In Hong Kong, for outbound trading of home-domiciled funds (MRF), the fund profits for mainland investors are not subject to tax for the time being.
Vietnam	Asset managers	N/A	There is no cross-border trading yet.
Indonesia	Custodians	N/A	-
Iran	Asset managers	N/A	-
Taiwan	N/A	N/A	There is no withholding tax on domestic fund profits. There is no outbound trading yet.

The operational mapping results from the Part II of this survey can be summarized as Table 27. It is strongly recommendable that Asian CSDs take note of this research work to build on their inter-CSD linkage for cross-border trading and conduct additional operational mapping to put forth more concrete and customized suggestions for post-trade harmonization.

[Table 27. Inter-CSD Operational Mapping Results]

Economy		China	Hong Kong	Indonesia	Iran	Japan	Republic of Korea	Taiwan	Thailand	Vietnam
Account Management	Nominee	△	O	X	X	O	O	O	O	X
Order Processing	Automation	△	O	△	X	O	O	O	O	△
	Batch Processing	Mandatory Single batch	Optional Real-time	Optional One by one	Optional Single batch	Optional Depending on funds	Optional Real-time	Optional One by one	Optional Multiple batches	Mandatory Single batch & One by one
Messaging	Domestic	X	△	X	X	△	X	X	X	X
	Cross-border	△	△	X	X	△	O	X	△	X
Cut-off		3:00 PM	6:00 PM	4:00 PM	3:00 PM	-	6:00 PM	5:00 PM	3:30 PM	T-1
NAV Disclosure		By 8am (TD)	-	By 9am (TD)	By 8am (TD)	-	By 7am (TD)	-	By 9am (TD)	TD
Decimalization		Up to 8 decimals	Up to 6 decimals	Up to 4 decimals	X	-	X	Up to 6 decimals	Up to 4 decimals	Up to 2 decimals
Reporting	Paper	X	O	O	X	O	O	O	O	O
	Digital	O	O	O	O	O	O	O	O	O
Reconciliation	Responsible Institution	TAs Asset managers	TAs	Custodians	Asset managers	Distributors Asset managers Trustees CSD	Trustees	Distributors Asset managers	TAs	Asset managers
	Frequency	Daily	-	Daily	Daily	Daily	Daily	Daily	Daily	Each trading session of fund
Trading Days		Common BDs only	Common BDs only	Common BDs only	Undecided	Undecided	Common BDs only	Common BDs only	Common BDs only	Common BDs only
Business Hours	As-Is	9am-3pm	8:30am-6pm	8am-5pm	9am-5pm	9am-5pm	9am-6pm	8:30am-5:30pm	8am-3:30pm	8am-5pm
	Willing to change?	No	Yes	Undecided	Undecided	No	No	No	No	Undecided
Tax Treatment	Domestic	Listed companies, Bond issuers, Banks	TAs N/A	Custodians	Asset managers	Distributors	Trustees	N/A	Asset managers	Asset managers
	Cross-border			N/A	N/A	Distributors	Undecided	N/A	N/A	N/A

III. CSD Milestones

CSDC

Issuance of REITs

Real estate investment trusts (REITs) were issued in the Mainland China in 2021. In June 2021, the first batch of nine REITs were officially issued in the Mainland China in the form of closed-end public fund. The investment targets cover highways, industrial parks, storages, and logistics, sewage treatments, garbage treatments and biomass power generation and other infrastructure types.

HKMA

1. Mainland-Hong Kong ETF Cross-listing

Together with the China Securities Regulatory Commission (CSRC), four ETFs were approved under a scheme which facilitates the cross-listing of ETFs between the Hong Kong and Mainland markets.

2. Hong Kong-Thailand Mutual Recognition of Funds

A mutual recognition of funds arrangement was entered into with the Securities and Exchange Commission (SEC) of Thailand which allows eligible Hong Kong and Thai public funds to be distributed in the other market through a streamlined process.

3. Green and Sustainable Finance

In December 2020, the Green and Sustainable Finance Cross-Agency Steering Group announced its six focus areas and five near-term action points to strengthen Hong Kong's financial ecosystem to support a greener and more sustainable future.

4. Enhancements to the Open-end Fund Company (OFC) Regime

The Securities and Futures Commission (SFC) is working closely with the Government on legislative amendments to introduce a statutory mechanism for the re-domiciliation of overseas corporate funds to Hong Kong as OFCs. Initiatives to refine the OFC regime in relation to winding-up procedures and AML and counter-financing of terrorism are underway.

5. Grant Scheme for OFCs and REITs

To attract more OFCs and REITs to Hong Kong, SFC worked closely with the local government to introduce a three-year grant scheme to subsidize the formation of OFCs and listing of REITs in Hong Kong.

KSD

1. MOU Signing on VentureNet

On October 6th 2020, KSD signed an MOU with the Korean Venture Capital Association (KVCA) on the development of a central platform “VentureNet” for the rejuvenation of the Korean venture capital market and the betterment of asset management in the post-trade space.

VentureNet is a dedicated platform built to enhance the management of VC investment assets by offering various functions such as common codes, centralized delivery of management instructions, automated confirmation of trading results, and electronic issuance of certificates on rights.

Powered by real-time automation technologies, KSD will operate VentureNet to provide a truly paperless post-trade experience to VC funds and custodians and greatly reduce operational risks and inefficiencies.

2. Shedding Light on Unregistered Funds with FundNet

On June 28, 2021, KSD announced that FundNet was upgraded to enable asset management companies, trustees, and other participants to identify unregistered fund assets with standard codes, share asset information, and carry out reconciliation and validation of holdings.

Private funds can be rife with trouble since their investment assets tend to be opaque and obscure the hidden risks unknown to stakeholders. In response, the system upgrade of FundNet will greatly help private market participants to ensure the accurate cross-checking of trading details and prevent fraudulent trading which may lead to the suspension of large-scale redemptions.

KSEI

1. Indonesia Public Housing Saving Program (TAPERA)

Amidst the Covid-19 Pandemic, KSEI, BP Tapera²⁶ and Bank BRI (custodian bank) have circularly signed an MOU to cooperate in the Public Housing Savings (Tapera) program.

Tapera is a government initiative that provides low interest funding to help lower-income workers on financing their needs for housing by adding the mandatory savings obligation for all employers and workers.

With the signing of the MOU and the support of the Financial Services Authority (OJK), KSEI is committed to provide the infrastructure system called S-MULTIVEST in order to support the management of Tapera funds and operational activities. In managing its funds, BP Tapera partners with Bank BRI for the depository and administration of Tapera participants' data and cash, based on the Tapera Fund Management Contract (KPDT).

KPDT Participants consist of Tapera participants who own a cash balance from regulated-sized monthly deposits. Each Tapera Participant will receive participating units as validation of their participation and the total amount of their deposit, as well as their cash growth. Furthermore, Participants can determine

²⁶ Public Housing Savings Management Agency

their individual fund management principles and their goals for the Tapera financing. Each Participants will receive a Participants Identity Number linked to their Single Investor Identification (SID).

S-MULTIVEST is an integrated electronic facility provided by KSEI to record each participants' SID numbers, participating units, and deposit cash balance. During its first subscription phase, the Tapera Fund's total reached around IDR 8.05 trillion from 3.47 million participants. The Indonesian government is driven to achieve its goal to increase the ratio of households with suitable homes from 56.75% to 70% by 2024.

2. Indonesia e-Proxy and e-Voting Platform “eASY.KSEI”

KSEI's electronic general meeting system (eASY.KSEI) is an e-proxy & e-voting platform developed by KSEI to accommodate issuers in convening the general meeting of shareholders (GMS). The development of eASY.KSEI is one of KSEI's endeavors in elevating its services to customers. Through an MOU, KSEI collaborate with Central Depository of Turkey namely Merkezi Kayıt Kuruluşu (MKK) as a partner to develop eASY.KSEI based on the scope resulting from the feasibility study in terms of business and legal perspective.

By using the e-proxy platform, shareholders may authorize proxies through eASY.KSEI in case they cannot attend the GMS. e-Proxy platform in eASY.KSEI was implemented by KSEI in April 2020. Until August 2021, eASY.KSEI has successfully accommodated 1,687 GMS events from 703 Issuers and were attended by 17,745 shareholders.

Since June 28th 2021, KSEI has introduced e-voting and live-streaming features which enable the investor to attend the GMS virtually and cast their vote directly. e-voting platform on eASY.KSEI includes quorum of attendance per agenda that would help issuers identify whether the quorums are achieved before the start of GMS.

Chat box and other features enable the shareholders and proxies present in the GMS electronically to submit their statements and questions to the issuer during the discussion session per agenda, to give votes directly during the live voting or electronic voting process, and to watch the GMS event live through the GMS Display feature. KSEI utilizes webinar technology on the GMS Display feature provided by Zoom which has a capacity of up to 500 participants, including the host as the party that operates the webinar as well as the panelists consisting of the Board of Directors and Commissioners who lead the GMS.

Furthermore, KSEI has also added other supporting features in conjunction with the development of e-voting platform based on user feedback. The supporting features consist of independent shareholders flag which will exclude any shareholders who have a conflict of interest when the issuer plans to conduct an independent shareholders' GMS, as well as exceptional shareholders feature which will exclude treasury stocks shareholders from the GMS.

In the meantime, the development of the second phase has already reached the testing stage and it is expected to go live this year. Nevertheless, KSEI will continue sustainable development in accordance with future business needs. The closest development that KSEI will do is to accommodate the GMS for Issuers with Multiple Voting Shares (MVS). MVS is a type of stock that has more than one voting right for each share.

Other future development plans regarding eASY.KSEI will be the development to accommodate General Meeting of Debt Instrument holders. The development plans are fully supported by OJK.

TDCC

Value-added features of ePASSBOOK by TDCC

TDCC has been committed to adopting FinTech applications for many years, paying close attention to international FinTech trends to keep improving services for investors. Since the launch of the onshore fund balance inquiry function in an app called “ePASSBOOK” in March 2019, the app has received a tremendous amount of positive feedback from investors.

In order to build upon its successful launch, TDCC have upgraded the fund service functions of ePASSBOOK on August 23, 2021. By utilizing the data of FundClear, investors are now able to see their fund portfolios from different distributors. What’s more, TDCC combined the original function of viewing multiple securities accounts and bank accounts. Therefore, investors can easily grasp the overview of their personal investment portfolio anywhere, anytime.

In addition, the "Find Fund" feature of ePASSBOOK allows investors to search for basic information on onshore funds. The search function is further improved to incorporate FundClear data, thus enabling investors to access offshore fund information as well, including net values and dividend information. Furthermore, investors can select any offshore fund they are interested in and add it to their tracking list. ePASSBOOK compares differences between multiple fund’s net values over the same period, thus helping investors to easily identify market trends. This is why ePASSBOOK is a fantastic tool for investors to manage their financial assets.

VSD

1. Signing an MOU with Clearstream Banking S.A., Luxembourg

On 20th January 2020, VSD signed an MOU with Clearstream Banking S.A., Luxembourg (CBL - under Deutsche Boerse) – a leading organization that provides depository and post-trade services to European securities market and also acts as an ICSD. The MOU signing will not only bring practical benefits to the two organizations, but also contribute to further development and effective interoperability between the Vietnamese and European securities markets and other markets with which CBL has established business relations

2. Participating in refining mechanisms, policies and legal documents in securities sector

According to the 2019 Securities Law that has come into effect since January 2021, a series of sub-regulatory documents need to be issued and/or revised. VSD closely followed the program on formulating guiding documents for the new Securities Law via proactively coordinating with the Ministry of Finance (MOF) and the State Securities Commission (SSC) to develop and refine sub-regulatory documents that are related to VSD, including guidelines and regulations on VSD’s business operations.

3. Standing side by side with the securities market in response to Covid-19 epidemic

In the context of the Covid-19 impact on all aspects of life, economy and society throughout 2020, VSD implemented synchronous measures and scenarios to promptly respond to and support members, issuers and investors. Currently, VSD is not charging fees for a number of services including securities

registration, initial online connection service, securities borrowing and lending service via VSD system, registration of derivatives trading members, and registration of clearing members. VSD has also lowered fees for the services, namely, securities depository service, position managing service, collateral management for the derivatives market, corporate actions processing and securities transfer service. Along with service fee exemption or reduction, VSD has supported issuers to deploy e-voting service with 30% fee discounts. In addition, VSD has directly supported members and fund managers through the terminal-based gateway/ISO-based gateway as requested.

4. Official launch of account management services for voluntary supplementary pension fund

In April 2021, VSD officially launched account management services for voluntary supplementary pension fund. The first voluntary supplementary pension program of Vietnam is An Vui Retirement Program managed by Dragon Capital Vietfund Management. The retirement program is considered as a practical financial planning tool to help employees save, invest and accumulate additional income until they reach retirement age. For businesses, the voluntary retirement program can be used as part of welfare policy, demonstrating the company's care for their employees and helping to attract and retain talent.

III. Conclusion

Asian economies are similar yet very different. The results of inter-CSD operational mapping indicate that there are noticeable gaps in the post-trade space of Asia. It seems quite manageable to bridge the gaps in account management, order processing, reconciliation, reporting, and trading days, whereas robust efforts are needed in the area of ISO-compliant messaging, decimalization, cut-off time, NAV disclosure, and tax treatment.

Some still underestimate post-trade complexities merely as some unattended work of “plumbing” and hold onto thoughts that back-office issues will be naturally go away once cross-border trading starts to pick up in earnest. However, our history tells us that nothing comes easy. Engaging in a cross-border trading without any post-trade concerns is no different from sending a vessel to the waters of your trading economy with little knowledge about the hidden rocks near the local harbor. It is an undeniable truth that avoiding shipwreck is a much wiser choice than fixing a broken ship afterwards.

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