S-INVEST
Indonesia Mutual Fund Infrastructure Updates & Future Plan

AFSF 2019 Knowledge Sharing Workshop
Bangkok, 13 – 14 November 2019
SA : Selling Agents
IM : Investment Managers
CB : Custodian Banks
BR : Brokerages
“S-INVEST is an integrated mutual fund platform in Indonesia that involves various parties interconnections in conducting investment fund business activities”

**Integrated System**
Centralized platform that connects various parties in Mutual Fund Industry

**Efficient Process**
Replacing manual instruction (fax, phone, hardcopy, etc), minimizing human error and reducing transaction cost and processing time

**Standardization and Data Integrity**
Creating standard for mutual fund transaction processes

**Monitoring**
Real time monitoring & surveillance

**Electronic reporting**
Electronic reporting to regulator and Media
“Mandatory as per OJK Regulation No. 28/POJK.04/2016 about Integrated Investment Management System (S-INVEST)”

* as of October 31, 2019
S-INVEST General Overview

Order Routing

- Investor
- Selling Agent (SA)
- Investment Manager (IM)
- Broker (BR) (Sec/Bank)
- Placement Bank (PB)
- Custodian Bank (CB)
- Regulator (OJK)
- News Media

Post Trade Processing

- Subscription
- Redemption
- Switching
- Securities purchase/sale transaction for Fund’s Portfolio
- Time Deposit placement in Banks

Confirmation Letter

Order Routing Instruction

PTP Instruction

Navigation

Placement Deal

Trade Confirmation

Settlement

Placement

eMonitoring

NAV Publication

www.ksei.co.id | 5
S-INVEST Statistics Data

I. Product

Registered Product in S-INVEST

<table>
<thead>
<tr>
<th>Month</th>
<th>Registered Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug-16</td>
<td>1.508</td>
</tr>
<tr>
<td>Aug-17</td>
<td>2.143</td>
</tr>
<tr>
<td>Aug-18</td>
<td>2.643</td>
</tr>
<tr>
<td>Aug-19</td>
<td>2.938</td>
</tr>
<tr>
<td>Oct-2019</td>
<td>3.002</td>
</tr>
</tbody>
</table>

99.07% “Strong infrastructure to support Mutual Fund Transaction”

Product Structure in S-INVEST*

- Capital Protected Fund; 963
- Discretionary Fund; 697
- Equity Fund; 352
- Fixed Income Fund; 338
- Global Fund; 14
- Index Fund; 36
- Infrastructure Fund; 6
- Mixed Asset Fund; 220
- Money Market Fund; 221
- Private Equity Fund; 99
- Real Estate Investment Trust; 5
- Sukuk Based Fund; 10
- CIC Asset Backed Securities; 6

* as of October 31, 2019
S-INVEST Statistics Data

II. Asset Under Management & Investor Growth

Total Asset Under Management & Investor in S-INVEST

- **Total AUM**
  - **USD 54 B**
    - 31 Oct 2019
    - **137%**
  - **USD 23 B**
    - 31 Aug 2016

- **Total Investor**
  - **1.618.589**
    - 31 Oct 2019
    - **368%**
  - **346.206**
    - 31 Aug 2016

*Millions*

**USD**
- 10.000
- 20.000
- 30.000
- 40.000
- 50.000
- 60.000

**Total Asset Under Management & Investor in S-INVEST**

*Months*
- Aug-16
- Oct-16
- Dec-16
- Feb-17
- Apr-17
- Jun-17
- Aug-17
- Oct-17
- Dec-17
- Feb-18
- Apr-18
- Jun-18
- Aug-18
- Oct-18
- Dec-18
- Feb-19
- Apr-19
- Jun-19
- Aug-19
- Oct-19

*Comparison*
- 31 Oct 2019
- 31 Aug 2016
S-INVEST Statistics Data
III. Fund Ownership & Product Currency

Asset under Management
IDR and NON IDR FUND

<table>
<thead>
<tr>
<th>Year</th>
<th>AUM IDR</th>
<th>AUM NON IDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>828,22</td>
<td>23.689,30</td>
</tr>
<tr>
<td>2017</td>
<td>1.497,57</td>
<td>31.928,07</td>
</tr>
<tr>
<td>2018</td>
<td>2.800,90</td>
<td>47.638,39</td>
</tr>
<tr>
<td>2019</td>
<td>2.971,12</td>
<td>51.899,32</td>
</tr>
</tbody>
</table>

Product Composition as of 6 Nov 2019

- Total Product IDR: 96%
- Total Product Non IDR: 4%

Investor Local and Foreign Ownership as of 31 Oct 2019

- Investor Local: 98%
- Investor Foreign: 2%
“Mutual Fund contributes high liquidity to total Equity Market in Indonesia”
S-INVEST Statistics Data
V. Transaction Frequency

MUTUAL FUND ASSET TRANSACTIONS
MONTHLY FREQUENCY

- Equity, 51,295
- Fixed Income, 3,148
- Time Deposit, 22,175

Daily Average 3,031 trx/day
Monthly Average 60,640 trx/month
S-INVEST Future Plan

- S-INVEST Tapera (Government Public Housing Scheme)
- S-INVEST PTP for Insurance Company & Pension Fund
- Cash Management System for Selling Agent Fintech
I. S-INVEST for Tapera (The Public Housing Saving)

Tapera

The Tapera program is a Government’s new scheme to help the low-income communities on financing their needs of housing by adding the mandatory savings obligation for employers and workers. This initiative regulated based on Republic of Indonesia Law No. 4 on 2016 about Tapera (Savings on Public Housing). Target Implementation = 2020.

Objectives

- Collecting and providing long-term and low-cost fund for financing an affordable housing
- To give a simplicity method for the member of Tapera to access financial fund for housing
- Providing investment scheme through a collective investment contract

Type of Product

Conventional and Sharia Fund
S-INVEST Tapera Process

**Role**

- **SA**
  - Selling Agent Role: Administrator of KYC, SID, Account data
  - Performed by BP TAPERA

- **IM**
  - Investment Manager Role: Managing fund portfolio
  - Performed by BP TAPERA

- **CB**
  - Custodian Bank Role: Managing investor unit allocation and balance, Processing asset transaction; Calculating Funds NAV
  - Performed by Custodian Banks

*) subject to decision
The fund management process and types of investment products are similar to mutual funds.

Inefficient manual processes using paper, fax, and e-mail as the primary means of communication.

The need for an integrated system for communication between similar parties.

The process, types of assets for investment, and similar related parties form the basis for the potential expansion of the use of S-INVEST for Pension Funds and Insurance Companies.
1. Order via phone
2. Receive trade confirmation (fax)
3. Confirmation checking (manual)
4. Create trade allocation (manual)
5. Submit trade allocation (fax)
6. Receive allocation confirmation (fax)
7. Create Settlement Instruction (manual)
8. Submit settlement instruction (fax)

Manual process

1. Create Settlement Instruction (manual)
2. Submit Settlement Instruction (fax)
3. Receive trade confirmation (fax)
4. Create trade allocation (manual)
5. Submit trade allocation (fax)
6. Receive allocation confirmation (fax)
7. Create Settlement Instruction (manual)
8. Submit settlement instruction (fax)
IS and PF may become S-INVEST User after approval from Financial Services Authority (OJK)

IS and PF will take role as IM in S-INVEST to manage their respective funds

IS and PF as S-INVEST User must comply with KSEI’s regulations, agreements, and procedures

**BENEFITS**

- Facilitate top managements to monitor the funds transaction
- Mitigate the risks of human error, system Interconnectivity & operational fees.
- Systemized Pre-matching process through S-INVEST PTP
Insurance & Pension Fund
Post Trade Processing Module

**Static Data**
- Parameter Setting
- User Rights Mgt
- Participant Data
- Product Data
- Investor Data
- Investor Acct

**Order Routing**
- Subs/Redm/Swtc
- Dist Income
- Liquidation
- Unit Allocation
- Unit Balance

**Post Trade Processing**
- Pre-Matching Process
- Settlement Instruction
- OTC Instruction

**Monitoring**
- Reports to Regulator
- Media Publication
- Statistics

Module for IS & PF
Insurance & Pension Fund

Product Type

1. Conventional Funds
   - Private Equity Fund
2. Exchange Traded Fund
   - Real Estate Investment Trust
3. Discretionary Fund
   - PF / IS’s Investment Product

NEW!
1. Pension funds or insurance companies deal with brokers / dealers or bank placements in terms of managing their respective funds.

2. After the transaction deal done, Brokers / dealers will deliver the transaction confirmation (trade confirmation) to the Pension Fund or the Insurance Company.

3. Pension Funds or Insurance Companies give instructions to Custodian to carry out transaction settlement processes.

4. Furthermore, the relevant Custodian Bank will complete the transaction with the broker / dealer or send instructions for time deposit to the placement bank.
III. Selling Agent Fintech Overview

NUMBER OF SA FINTECH IN INDONESIA

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>3</td>
</tr>
<tr>
<td>2017</td>
<td>5</td>
</tr>
<tr>
<td>2018</td>
<td>8</td>
</tr>
<tr>
<td>2019</td>
<td>10</td>
</tr>
</tbody>
</table>

% of KYC registered in S-INVEST as per 6 November 2019

- Investor SA Fintech 46%
- Investor Non Fintech 54%

Characteristics:

- Online Based (Via website, mobile apps, etc)
- Retail-Based Investor
- High Frequency Transaction
- 24/7 Investor Registration
- Small Transaction Value
SA Fintech Transaction Value

Selling Agent (Fintech) Average Monthly Transaction Value

<table>
<thead>
<tr>
<th>Year</th>
<th>Subscription</th>
<th>Redemption</th>
<th>Switching In</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>USD 432.861</td>
<td>USD 354.089</td>
<td>USD 24.413</td>
</tr>
<tr>
<td>2017</td>
<td>USD 2.516.609</td>
<td>USD 1.578.560</td>
<td>USD 19.890</td>
</tr>
<tr>
<td>2018</td>
<td>USD 9.163.001</td>
<td>USD 6.395.052</td>
<td>USD 129.346</td>
</tr>
</tbody>
</table>

Average Monthly Transaction Value Increase: 6,586%
Selling Agent (Fintech) Order Routing
Average Monthly Frequency

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subs</td>
<td>1.460</td>
<td>13.294</td>
<td>69.065</td>
<td>198.316</td>
</tr>
<tr>
<td>Switching In</td>
<td>17</td>
<td>59</td>
<td>100</td>
<td>209</td>
</tr>
<tr>
<td>Redemption</td>
<td>234</td>
<td>3.244</td>
<td>19.275</td>
<td>59.379</td>
</tr>
</tbody>
</table>

Average Monthly Transaction Growth from Aug’16 – Oct’19 : 14,890%
Cash Management System for Selling Agent Fintech

Infrastructure support for Mutual Fund cash flow

Cash Management System

BENEFITS

- Transparency
- Convenience
- Connectivity
- Reconciliation
Subscription Money Flow through KSEI System

**Partial/Bulk Transfer**

**Cash Management System**

1. **Partial/Bulk Transfer**
2. **Batch Process from IFUA* to Fund Cash A/C as per Selling Agent Instruction**
3. **Cash Withdrawal performed by Custodian Bank**
4. **Payment order**

* IFUA = Investor Fund Unit Account

**Fund Cash A/C**

- IFUA 1:
  - 500
  - 500
- IFUA 2:
  - 250
  - 250
- IFUA 3:
  - 750
  - 750

- Fund Cash Target A/C

**Custodian Bank**
Redemption Money Flow through KSEI System

1. Fund Transfer to Fund Redemption A/C
2. Book Transfer from Fund Redemption A/C to IFUA
3. Cash Withdrawal from IFUA to Investor Redemption Payment A/C
4. Payment order

Custodian Bank

Fund A/C

Cash Management System

Fund Cash A/C

IFUA 1
500
IFUA 2
250
IFUA 3
750

INVESTOR
Bank Account
Thank you for your attention