## ILLUSTRATIONS FOR CALCULATING DAILY AGGREGATE PAYMENT FOR SERVICES FOR A DEFAULT INVESTMENT STRATEGY (DIS) CONSTITUENT FUND

For the purposes of section $34 \mathrm{DD}(4)(\mathrm{a})$ of and section 1 of Schedule 11 to the Mandatory Provident Fund Schemes Ordinance (the Ordinance), examples are set out below to illustrate how to calculate the daily aggregate payment for services (PFS) for a DIS constituent fund (DIS CF) under four different investment structures and scenarios. They are provided to assist approved trustees in understanding the relevant calculation and in comparing it against the daily percentage rate set out in section 1 of Schedule 11 to the Ordinance.

## Formula for calculating Aggregate PFS of a DIS CF for the purposes of section 34DD(4)(a) of and section 1 of Schedule 11 to the Ordinance

Aggregate PFS (\%)
$=$ the total amount of all PFS specified in section $34 \mathrm{DD}(2)$ of the Ordinance that are charged to or imposed on the fund, or a scheme member who invests in the fund and calculated as a percentage of the net asset value of the fund (\%) $+$
the total amount of any proportionate underlying investment fund fees chargeable to any underlying investment fund of the fund (\%)
where
proportionate underlying investment fund fee $=\mathrm{A} \times \mathrm{B}$;
and where
A = the underlying investment fund fee (UIFF) being calculated as a percentage of the net asset value (NAV) of the underlying investment fund;
$B=$ the proportion of the assets of the DIS CF that is invested in the underlying investment fund

## Scenario 1: The DIS CF makes direct investment

## Assumptions:

1. PFS of DIS CF $=0.70 \%$ p.a. of the CF's NAV

CF
0.70\%

Step 1: Calculate the total PFS at CF level and the total proportionate UIFF at underlying investment fund level:
(a) Total amount of all PFS at CF level $=0.70 \%$
(b) Total amount of all proportionate UIFF $(\mathrm{A} \times \mathrm{B})=0 \%$

Step 2: Calculate Aggregate PFS for the DIS CF:

Aggregate PFS $=(a)+(b)=0.70 \%+0 \%=0.70 \%$

Step 3: Compare daily Aggregate PFS with daily rate specified in section 1 of Schedule 11 to the Ordinance:

$$
\frac{0.70 \%}{\mathrm{~N}}<\frac{0.75 \%}{\mathrm{~N}}
$$

where $N$ is the number of days in the year

Since the daily Aggregate PFS does not exceed the daily rate specified in section 1 of Schedule 11 to the Ordinance, it complies with section $34 \mathrm{DD}(4)(a)$ of the Ordinance.

Scenario 2: The DIS CF invests solely in an approved pooled investment fund (APIF) which makes direct investment

## Assumptions:

1. PFS of DIS CF $=0.40 \%$ p. a. of the CF's NAV
2. For the APIF, $A=0.30 \%$ p.a. of the APIF's NAV, $B=100 \%$


Step 1: Calculate the total PFS at CF level and the total proportionate UIFF at underlying investment fund level:
(a) Total amount of all PFS at CF level $=0.40 \%$
(b) Total amount of all proportionate UIFF $(\mathrm{A} \times \mathrm{B})=0.30 \% \times 100 \%=0.30 \%$

Step 2: Calculate the Aggregate PFS for the DIS CF:

Aggregate PFS $=(a)+(b)=0.40 \%+0.30 \%=0.70 \%$

Step 3: Compare daily Aggregate PFS with the daily rate specified in section 1 of Schedule 11 to the Ordinance:

$$
\frac{0.70 \%}{\mathrm{~N}}<\frac{0.75 \%}{\mathrm{~N}}
$$

where $N$ is the number of days in the year

Since the daily Aggregate PFS does not exceed the daily rate specified in section 1 of Schedule 11 to the Ordinance, it complies with section $34 \mathrm{DD}(4)(a)$ of the Ordinance.

## Scenario 3: The DIS CF invests into two APIFs which make direct investment

## Assumptions:

1. PFS of DIS CF $=0.40 \%$ p.a. of the CF's NAV
2. APIF X and APIF Y make direct investment
3. For APIF X, $\mathrm{A}=0.30 \%$ p. a. of APIF X's NAV, $B=60 \%$
4. For APIF Y, $\mathrm{A}=0.20 \%$ p. a. of APIF Y's NAV, $B=40 \%$


Step 1: Calculate the total PFS at CF level and the total proportionate UIFF at underlying investment fund level:
(a) Total amount of all PFS at CF level $=0.40 \%$
(b) Total amount of all proportionate UIFF $(\mathrm{A} \times \mathrm{B})=0.30 \% \times 60 \%+0.20 \% \times 40 \%=$ $0.26 \%$

Step 2: Calculate the Aggregate PFS for the DIS CF:

Aggregate PFS $=(\mathrm{a})+(\mathrm{b})=0.40 \%+0.26 \%=0.66 \%$

Step 3: Compare daily Aggregate PFS with the daily rate specified in section 1 of Schedule 11 to the Ordinance:
$\frac{0.66 \%}{\mathrm{~N}}<\frac{0.75 \%}{\mathrm{~N}}$
where $N$ is the number of days in the year

Since the daily Aggregate PFS does not exceed the daily rate specified in section 1 of Schedule 11 to the Ordinance, it complies with section 34DD(4)(a) of the Ordinance.

Scenario 4: The DIS CF invests into two APIFs which invest further into approved index-tracking collective investment schemes (ITCIS) and/or APIF

## Assumptions:

1. PFS of DIS CF $=0.30 \%$ p. a. of the CF's NAV
2. APIF X invests $60 \%$ into APIF Z and $40 \%$ into ITCIS 1
3. APIF Y invests solely into ITCIS 2
4. APIF Z, ITCIS 1 and ITCIS 2 make direct investments
5. For APIF X, $A=0.20 \%$ p. a. of APIF X's NAV, $B=60 \%$
6. For APIF Y, $A=0.10 \%$ p. a. of APIF Y's NAV, $B=40 \%$
7. For APIF $Z, A=0.20 \%$ p. a. of APIF Z's NAV, $B=60 \% \times 60 \%$
8. For ITCIS $1, A=0.30 \%$ p. a. of ITCIS 1's NAV, $B=60 \% \times 40 \%$
9. For ITCIS $2, A=0.30 \%$ p. a. of ITCIS 2 's NAV, $B=40 \% \times 100 \%$


Step 1: Calculate the total PFS at CF level and the total proportionate UIFF at underlying investment fund levels:
(a) Total amount of all PFS at CF level $=0.30 \%$
(b) Total amount of all proportionate UIFF (A x B) $=[(0.20 \% \times 60 \%)+(0.10 \% \times$ $40 \%)]+[(0.20 \% \times 60 \% \times 60 \%)+(0.30 \% \times 60 \% \times 40 \%)+(0.30 \% \times 40 \% \times$ 100\%)]
$=0.424 \%$

Step 2: Calculate the Aggregate PFS for the DIS CF:

Aggregate PFS $=(a)+(b)=0.30 \%+0.424 \%=0.724 \%$

Step 3: Compare daily Aggregate PFS with the daily rate specified in section 1 of Schedule 11 to the Ordinance:

$$
\frac{0.724 \%}{\mathrm{~N}}<\frac{0.75 \%}{\mathrm{~N}}
$$

where $N$ is the number of days in the year

Since the daily Aggregate PFS does not exceed the daily rate specified in section 1 of Schedule 11 to the Ordinance, it complies with section $34 \mathrm{DD}(4)(\mathrm{a})$ of the Ordinance.

