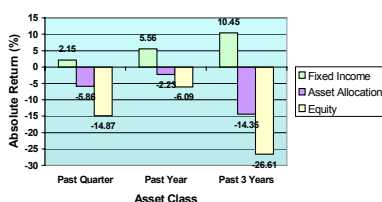


# 3RD QUARTER 2002 PERFORMANCE AND RISK MONITORING REPORT

*For CPFIS-Included Unit Trusts & Investment-Linked Insurance Products*



November 25, 2002  
**Standard & Poor's Fund Services Asia**



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Standard & Poor's Fund Services Asia has been appointed by the Funds Performance Tracking Committee (FPTC), delegee of the Central Provident Board (CPF) Board, to monitor the performance of all unit trusts and investment-linked insurance products included under the CPF Investment Scheme (CPFIS). This report documents the findings of Standard & Poor's Fund Services for the period ending September 30, 2002 (Q3 2002).

## **UPDATES ON CPFIS-INCLUDED FUNDS**

The number of funds included under the CPFIS has again increased over the past quarter. Below are some summary statistics:

- **Total Number of CPFIS-Included Funds:** As at September 30, 2002, there are altogether 208 unit trusts and 157 investment-linked insurance products (ILPs) included under the CPF Investment Scheme.
- **New Products:** 6 new Unit Trusts and 13 new ILPs have been added to the CPFIS in Q3.
- **Delisted Products:** 1 Unit Trust was delisted from the CPFIS this quarter, namely Keppel Asia Fund.
- **Management Group Updates:** 1 additional management group has been included under the CPFIS, namely ING Investment Management Asia Pacific (Singapore). There are now altogether 35 Fund Management Companies (FMCs) under the Scheme.

## MARKET REVIEW

### 1. Equities

#### *Around the World*

Continuing the down draft from a poor-performing 2nd quarter, global markets slid to even lower levels in Q3, caused in large part by fears over slowing global economic growth and talk of war between the US and Iraq. US markets remained stuck in its own quagmire of diminishing investor confidence, continued corporate fraud investigations and reduced corporate spending which resulted in downward profit guidance adjustments for even some of the biggest names in the market. The S&P 500 fell 17.6% this past quarter, while NASDAQ declined 19.9% -- levels not seen since 1997. The worst performance was seen in Europe, where domestic economic concerns in addition to bad news from the US drove the DAX and FTSE down by 36.8% and 20.1% respectively.

#### *In Asia*

While some of the sell-off in Asia was prompted by US market weakness, another key factor influencing Asian markets' performance is investors' uncertainty over the export sectors which were greatly affected by slowing economic growth in the US. Coupled with a strike at the West Coast ports that has crippled Asia-Pacific goods deliveries, the rising possibility of earnings disappointments dampened interest in equities in Q3. Not surprisingly, the countries that fared better are the ones with greater domestic consumption growth potential.

The Philippines were the best-performing market in the region in Q3 with its index declining only 2.3%. The Shanghai B-shares and S&P ASX 200 also fared relatively well, each falling only 4.1% and 7.6% respectively. Nikkei 225, KLCI, STI, KOSPI and Hang Seng all fell in the low teens (11.7-14.4%) while Taiwan with its technology- and export-oriented TSE dropped by 18.7% and became the region's worst performer in the September quarter.

| <u>Indices</u> | <u>Jun 28, 2002</u> | <u>Sep 30, 2002</u> | <u>Change</u> |
|----------------|---------------------|---------------------|---------------|
| DJIA           | 9,243.26            | 7,591.93            | -17.9%        |
| S&P 500        | 989.82              | 815.28              | -17.6%        |
| FTSE 100       | 4,656.40            | 3,721.80            | -20.1%        |
| DAX            | 4,382.56            | 2,769.03            | -36.8%        |
| Topix 150      | 1,024.89            | 921.05              | -10.1%        |
| Hang Seng      | 10,598.55           | 9,072.21            | -14.4%        |
| S&P/ASX 200    | 3,216.00            | 2,970.90            | -7.6%         |
| Shanghai A     | 1,809.96            | 1,650.48            | -8.8%         |
| Shanghai B     | 150.79              | 144.58              | -4.1%         |
| Twn Stk Exchg  | 5,153.71            | 4,191.81            | -18.7%        |
| KOSPI          | 742.72              | 646.42              | -13.0%        |
| STI            | 1,552.98            | 1,352.30            | -12.9%        |
| SET            | 389.10              | 331.79              | -14.7%        |
| KLCI           | 725.44              | 638.01              | -12.1%        |
| Jkt Comp       | 505.01              | 419.31              | -17.0%        |
| Philip Comp    | 1,156.35            | 1,129.34            | -2.3%         |

## 2. Bonds

### *Around the World*

Global government bond markets enjoyed a stellar quarter, with the US market leading the way. The sharp drop in equity markets in July, followed by its tepid recovery and further decline in September spurred demand for greater security, capital preservation and therefore bonds. Geopolitical factors increased the risk aversion of many investors, as prospects of UN/US-led military action against Iraq rose, dampened only temporarily by Iraqi President Saddam Hussein agreeing to weapons inspection.

US economic growth continues to sputter along, sapping growth for the global economy in general. The Federal Reserve has not moved on the Fed fund rate so far, maintaining it at 1.75%, although there has been much talk of a possible rate cut in Q4 after 2 members dissented at the September 24 meeting.

JP Morgan Global Government Bond Index rose 4.17% during the 3rd quarter as compared to returns of +11.3% in Q2 and -1.5% in Q1, making the index's year-to-date performance 14.21%. US Treasuries, benefiting from "safe-haven flows" on the above-mentioned issues, rallied and drove yields to 40-year lows. US Treasury Index (Merrill Lynch) earned 7.23% in Q3. Yields dropped 121bps on 10-year Treasuries to 3.60%, with shorter maturities falling below the Fed fund rate. 2-year Treasuries were down 116bps to 1.70% while 5-years are at 2.56%, all hitting record lows this quarter.

US corporate bonds underperformed US Treasuries in Q3, in line with the decline in equities as issues of corporate scandals, accounting irregularities, disappointing corporate earnings and uncertainty regarding their credit quality persist. S&P Investment Grade Credit Index jumped to a record wide spread of 267.7 bps over US Treasuries (equivalent to an average yield that is 2.68% more than a 10-year US Treasury bond).

In Euroland, the European Central Bank continues to keep its overnight rate at 3.25% as major European economies face faltering business confidence and stalling growth, overshadowed by possible military conflict in Iraq. These factors have prompted a surge in bond prices, causing German 10-year bond yields to fall 67bps to 4.27% while French 10-year bonds were 64bps lower at 4.39%.

### *In Asia*

During Q3 2002, the Japanese Government Bond (JGB) market traded in a boxed-range of roughly about 1.25% - 1.35% for 10-year yields until mid-August. Many domestic investors were largely looking for a chance to buy above 1.35%, but the market did not provide such bargain-hunting opportunities. The JGB market started to rally from mid-August onwards. One trigger was the Japanese government's decision in early August to fully secure "cash settlement bank accounts" even after FSA's decision to re-introduce deposit insurance cap on April 1, 2003. This led to the expectation that banks would no longer need to keep large liquidity positions as the likelihood of deposit outflows is eliminated, increasing the probability that excess liquidity would thus flow into JGB. The rally accelerated in early September, since domestic investors needed to achieve planned JGB investment by the end of

Japan's fiscal-half year (the end of September). The 10-year JGB yield fell to touch 1.00% on September 13.

However, the market was hit by two shocks in the middle of September. On September 18, the Bank of Japan announced its decision to buy a part of bank-held stocks to soothe stock-loss pressure on the banking system. Caught off-guard by this unprecedented announcement by the central bank, the 10-year yield rose sharply to 1.25% on that day. Speculation emerged that the government might take more aggressive actions to fix Japan's non-performing loan problems, which would probably require additional fiscal spending, either directly or indirectly. Under such strong policy uncertainty before the book-close, the 10-year JGB auction held on September 20 was under-subscribed. On this second shock, the 10-year yield rose to 1.30%. The market, however, recovered some stability late September, since long-term investors began to think that aggressive bank NPL disposal would strengthen Japan's deflation, at least in the early stages. The 10-year yield came down to 1.175% on September 30.

Two South East Asian countries received ratings upgrades this quarter. South Korea was raised to A- from BBB+ by Standard & Poor's based on its continued strong economic performance which has reduced its financial sector's systematic risk. The South Korean bond market has become the "safe-haven" of government bonds for global investors, hence yield on 3-year government Treasury bonds fell 36bps this quarter to 5.30% as the stock market declined almost 15%. However, gains have been capped by frequent comments by Bank of Korea officials warning of a need to hike interest rates to stem growing inflationary pressures due to ballooning real estate prices. So far, the BoK has left interest rates unchanged at 4.25%.

In Malaysia, S&P upgraded its international long-term rating to BBB+ from BBB in August to reflect government's commitment to corporate and banking reform, as well as the fact that its improving economy and external debt position are brightening its fiscal position.

Several governments, along with many banks and utilities, have made plans to tap international bond markets for funds, taking advantage of low absolute interest rates and high-quality Asian credits as lower-risk, defensive assets. This is mainly due to the positive credit trend from the recent upgrades to sovereigns and several corporates, support from strong regional demand and relative attractiveness when compared to Latin American and US corporate markets.

However, lurking nearby is the threat of contagion from another emerging market, Brazil, whose market and currency have been roiled by political uncertainty as a leftist candidate, Lula da Silva, surged ahead in the polls for the upcoming election. Investors fear that a leftist President would mismanage the economy and pushed the country into defaulting on its \$250 bln of public debt.

Finally, in Singapore, the 10-year Singapore government bond yield has fallen 63bps to 3.30%, its lowest level year-to-date. Recent high overnight rates and tight liquidity have capped gains at the short end, with the 1-year government bond yield actually rising 21bps to 1.18%.

### 3. Currency

#### *Around the World*

The dollar managed to stabilize during Q3 after falling steeply through the prior quarter. The trade-weighted dollar index (FINEX version) firmed by just less than one percent net in the September quarter after tumbling over 11% in Q2.

Worries that the dollar was set to reverse its multi-decade rally abated somewhat in Q3, though a crescendo of corporate accounting scandals and continued stock market declines during July ensued that some concerns remained given the US's massive current account deficit. However, as US capital flow data revealed, foreign demand for dollar assets held up in July despite plunging stocks (most recent data only goes up to July). Foreign accounts bought a net \$50.6 bln driven by "safe-haven flows" into Treasuries, where net demand nearly doubled to \$25.4 bln -- the highest level since the Russian/LTCM crisis in 1998. On the other side of the equation, US investors repatriated \$21 bln worth of foreign securities, due to mutual fund withdrawals, resulting in a net cross-border portfolio inflow of \$71 bln into the US. Subsequent to this, a strong run of US economic data and the Fed's re-adoption of an easing bias saw a semblance of stability return to stock markets, further helping the dollar hold up.

EUR-USD was largely flat on the quarter, finishing at 0.9916. Disappointing economic data out of the eurozone, especially Germany, made it impossible for the Euro to sustain the impressive gains it saw in Q2.

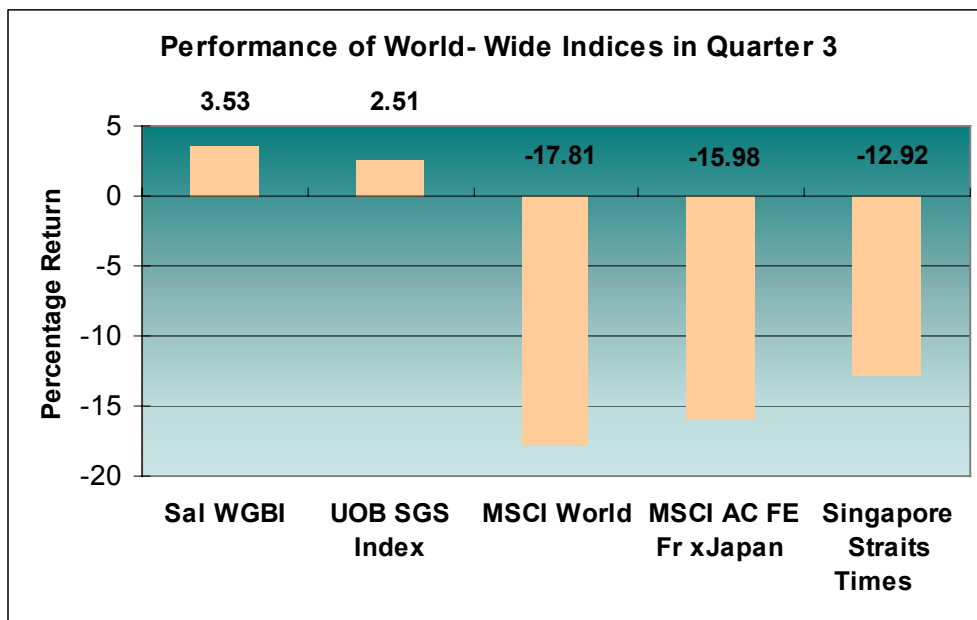
#### *In Asia*

The yen saw a mixed performance over the quarter, losing ground against the dollar and key European currencies, but firming somewhat against the dollar bloc units and most of the floating Asian currencies. Decline in Japanese equities (Topix and Nikkei 225) late in the quarter cast some pressure on the yen, after having outperformed during the first half of the year. USD-JPY closed the quarter out at Y122 after starting near Y118.

Meanwhile, global growth-correlated currencies such as the AUD and NZD, and also exporter-nation Asian currencies like the won, all lost ground in Q3, though only modestly. These currencies had been the biggest gainers during the first half of the year, but lost some of their shine as investors' risk aversion returned amid an overall cloudier economic environment coupled with mounting geopolitical concerns.

#### 4. Performance of World-wide Indices

The above indices represent the various major financial markets/sectors in the following manner:



- **Sal WGBI USD (SSB World Gov't. Bond Index):** Global bonds
- **UOB SGS Index:** Singapore bonds
- **MSCI World Index:** Global equities
- **MSCI AC Far East (FE) ex Japan:** Asian ex-Japan equities
- **Singapore Strait Times Index:** Singapore equities

The minimum annual interest rates paid by the CPF Board with regards the various accounts are as follows:

- **Ordinary:** 2.5%
- **Special:** 4.0%
- **Medisave:** 4.0%
- **Retirement:** 4.0%

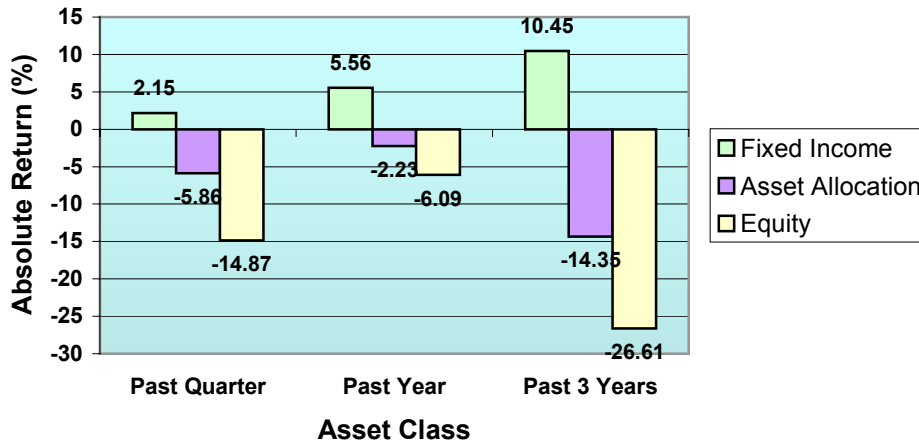
Please note that the above interest rates are based on the 12-month fixed deposit and month-end savings rates of the major local banks and are revised quarterly. The interest is computed monthly, and is credited and compounded annually.



# SUMMARY OF ABSOLUTE PERFORMANCE

## 1. Average Absolute Performance

The average absolute returns of the various asset classes<sup>1</sup> of CPFIS-included unit trusts and



ILPs are summarized in the graphs below.

### Average Performance of CPFIS-Included Unit Trusts

Over the past quarter, the average CPFIS-included unit trust produced a return of -11.94%, with the return of fixed income funds, 2.15%, being the highest amongst all asset groups in the period – a trend very much like the results in Q2.

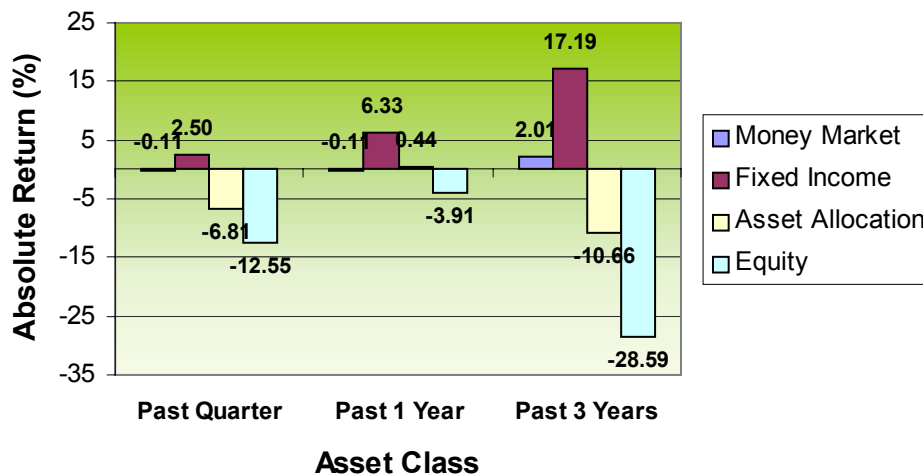
In the longer 1-year period, the performance of fixed income was substantially above that of the two asset classes, with an average absolute return of 5.56%. Asset allocation funds and equity funds posted an average loss of 2.23% and 6.09% respectively, a moderate improvement from the equivalent period in Q2. Average return of CPFIS-included unit trust is -4.37% over the past 12 months.

With regards to the performance over the past 3 years, a similar pattern prevails with fixed income funds producing the highest average return, 10.45%.

<sup>1</sup> Definitions of the asset classes are as follows:

- **Money Market:** Funds investing solely in money market or cash instruments with duration ranging from overnight to 12 months. Investments will normally be held in bank deposits, short-term monetary investments (e.g. T. Bills and certificates of deposit).
- **Fixed Income:** Funds investing in excess of 70% in fixed interest securities (corporate, government, index-linked etc.).
- **Asset Allocation:** Funds with a portfolio principally invested in equity, fixed interest and money market securities but typically with no more than 60% in any one asset class.
- **Equity:** Funds investing in excess of 70% in equities or related instruments. Such funds may have an objective of capital and/or income growth; and may be passively (i.e. index tracking) or actively managed.

## Average Performance of CPFIS-Included ILPs



As for the performance of CPFIS-included ILPs, the average return in Q3 is -9.19%. Amongst all the 4 asset classes, fixed income funds have done the best, delivering on average 2.50% in return.

Over the past year, fixed income funds have again outperformed the other categories with 6.33% in average return. Average returns for equity, asset allocation and money market funds in the same period are -3.91%, 0.44% and -0.11% respectively, with the overall return for CPFIS-included ILPs being, on average, a slight loss of 1.77%.

In the 3-year period, the average returns of asset allocation and equity funds are still in the negative region, being -10.66% and -28.59% respectively. The performance of the fixed income sector is encouraging over the longer 3 years' horizon, producing on average a return of 17.19%. Money market funds' average returns are quite stable at 2.01%. The overall performance of CPFIS-included ILPs is -15.49% over the past 3 years.

## 2. Overview of Average, Best & Worst Performance by Asset Class

The tables highlight the average return as well as the returns achieved by the best and worst performer of each asset class.

### CPFIS-Included Unit Trusts

| Singapore Unit Trusts   | Last Quarter<br>Absolute<br>Return (%) | # of<br>Funds | Last Year<br>Absolute<br>Return (%) | # of<br>Funds | Last 3 Years<br>Absolute<br>Return (%) | # of<br>Funds |
|-------------------------|--|---------------|-------------------------------------|---------------|--|---------------|
| <b>Fixed Income</b>     |  |               |                                     |               |  |               |
| Average Return          | 2.15                                   | 20            | 5.56                                | 17            | 10.45                                  | 12            |
| Best Performer          | 4.40                                   |               | 10.01                               |               | 15.17                                  |               |
| Worst Performer         | -0.09                                  |               | 1.49                                |               | 4.32                                   |               |
| <b>Asset Allocation</b> |  |               |                                     |               |  |               |
| Average Return          | -5.86                                  | 27            | -2.23                               | 24            | -14.35                                 | 9             |
| Best Performer          | 0.57                                   |               | 6.25                                |               | -0.53                                  |               |
| Worst Performer         | -12.50                                 |               | -15.38                              |               | -30.25                                 |               |
| <b>Equity</b>           |  |               |                                     |               |  |               |
| Average Return          | -14.87                                 | 152           | -6.09                               | 128           | -26.61                                 | 73            |
| Best Performer          | 3.13                                   |               | 47.26                               |               | 32.88                                  |               |
| Worst Performer         | -30.95                                 |               | -47.63                              |               | -65.05                                 |               |

### CPFIS-Included ILPs

| Singapore Insurance Linked | Last Quarter<br>Absolute<br>Return (%) | # of<br>Funds | Last Year<br>Absolute<br>Return (%) | # of<br>Funds | Last 3 Years<br>Absolute<br>Return (%) | # of<br>Funds |
|----------------------------|--|---------------|-------------------------------------|---------------|--|---------------|
| <b>Money Market</b>        |  |               |                                     |               |  |               |
| Average Return             | -0.11                                  | 4             | -0.11                               | 4             | 2.01                                   | 4             |
| Best Performer             | 0.37                                   |               | 1.31                                |               | 6.42                                   |               |
| Worst Performer            | -1.02                                  |               | -2.02                               |               | -3.96                                  |               |
| <b>Fixed Income</b>        |  |               |                                     |               |  |               |
| Average Return             | 2.50                                   | 12            | 6.33                                | 9             | 17.19                                  | 5             |
| Best Performer             | 5.16                                   |               | 12.36                               |               | 22.81                                  |               |
| Worst Performer            | -0.30                                  |               | 1.22                                |               | 7.31                                   |               |
| <b>Asset Allocation</b>    |  |               |                                     |               |  |               |
| Average Return             | -6.81                                  | 43            | 0.44                                | 28            | -10.66                                 | 14            |
| Best Performer             | 0.61                                   |               | 12.82                               |               | 6.00                                   |               |
| Worst Performer            | -13.04                                 |               | -14.30                              |               | -22.54                                 |               |
| <b>Equity</b>              |  |               |                                     |               |  |               |
| Average Return             | -12.55                                 | 83            | -3.91                               | 66            | -28.59                                 | 23            |
| Best Performer             | 1.90                                   |               | 25.49                               |               | -10.89                                 |               |
| Worst Performer            | -27.12                                 |               | -47.01                              |               | -52.69                                 |               |

To see the return performance of individual funds, please refer to the Quantitative Performance Analysis UT and Quantitative Performance Analysis ILP reports.

### 3. Positive & Negative Returns Distribution for Unit Trusts & ILPs

|                              | Last Quarter | Last 3 Years |
|------------------------------|--------------|--------------|
| <b>Singapore Unit Trusts</b> |              |              |
| Funds with Positive Returns  | 32 (16%)     | 17 (18%)     |
| Funds with Negative Returns  | 167 (84%)    | 77 (82%)     |
| <b>Singapore ILPs</b>        |              |              |
| Funds with Positive Returns  | 24 (18%)     | 9 (20%)      |
| Funds with Negative Returns  | 116 (82%)    | 37 (80%)     |

Over the past quarter, the percentage of investment funds with positive returns is 16% for unit trusts and 18% for ILPs, and the majority of this group of positive-return performers fall into the fixed income or guaranteed fund categories.

As for the longer 3-year period, the results are fairly similar with 18% and 20% of all CPFIS-included unit trusts and ILPs producing positive returns respectively. The funds that are in the positive territory are mostly from the following categories:

- ASEAN equity markets such as Thailand, Malaysia, Indonesia etc.
- Global fixed income markets
- Singapore fixed income markets

## SUMMARY OF RISK-ADJUSTED PERFORMANCE

### 1. Risk-Return Analysis over Past 3 Years

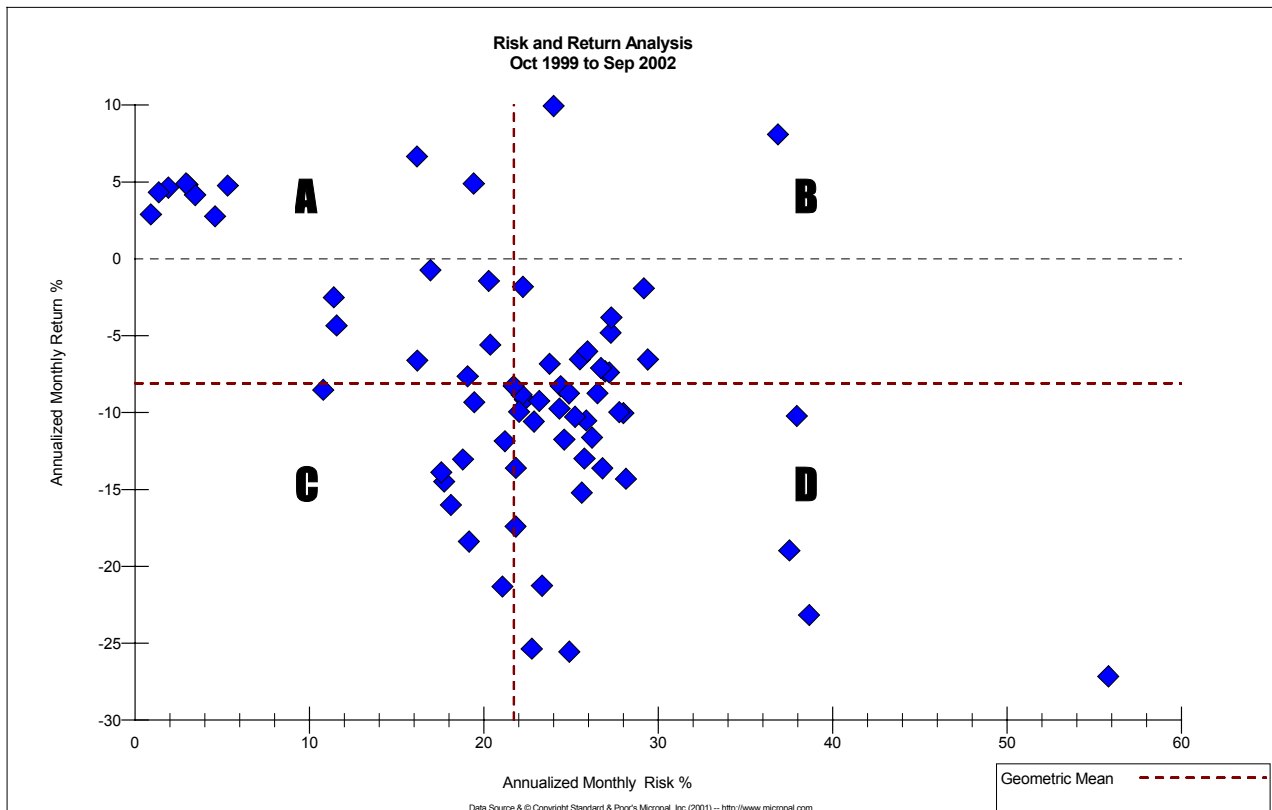
The scatterplots below compare the return performance of CPFIS-included unit trusts and ILPs against their risk level (i.e. volatility). Return performance is shown on the vertical axis and the funds' volatility is on the horizontal axis. Using the median lines (dotted in red) as divider, 4 distinct quadrants will be formed, representing the following:

- **Quadrant A:** Funds with **above-average return** but **below-average risk**
- **Quadrant B:** Funds with **above-average return and risk**
- **Quadrant C:** Funds with **below-average return and risk**
- **Quadrant D:** Funds with **below-average return** but **above-average risk**

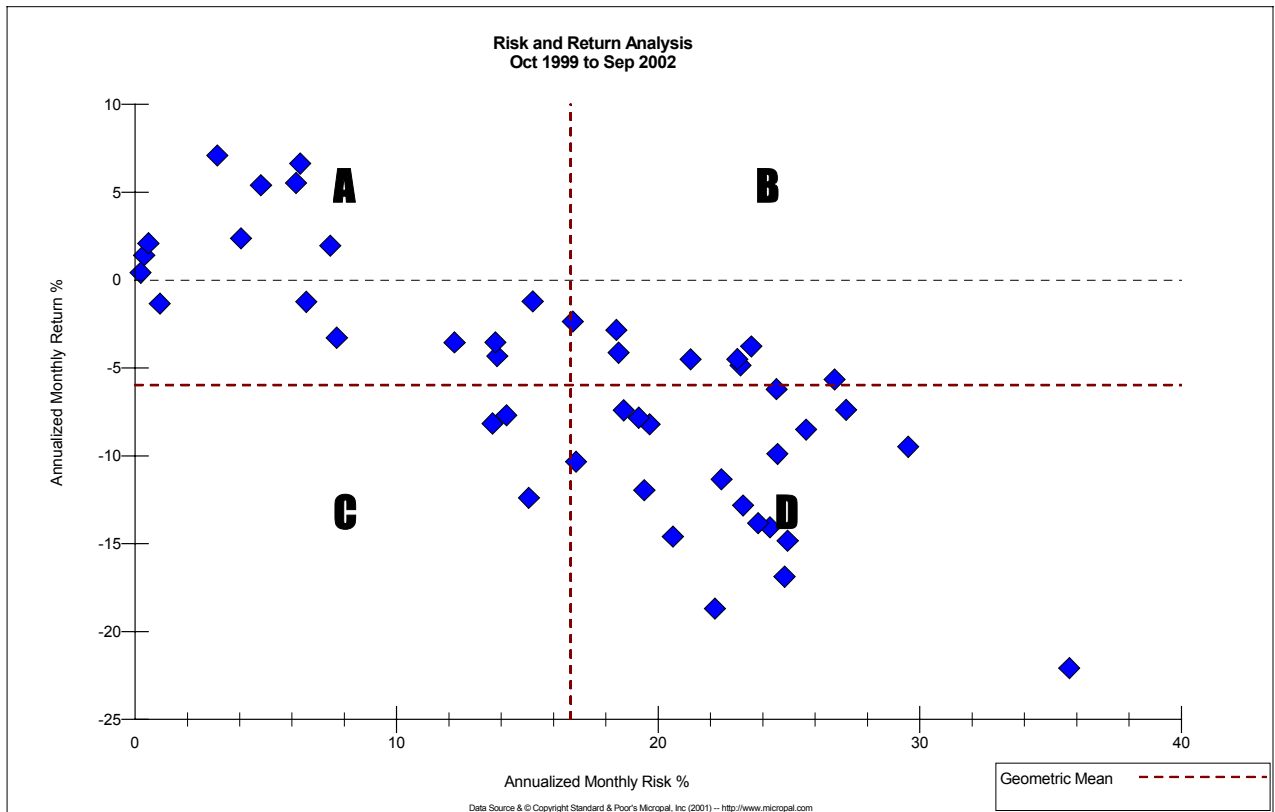
All quadrants with the exception of D are desirable depending on the employee's risk tolerance level and return requirements. Quadrant A might be seen as the most optimal choice where the fund managers have managed to produce relatively high returns while minimizing the funds' volatility.

Over a 3-year period, in the entire group of CPFIS-included unit trusts, 35.7% are in quadrant A while 40.5% of the funds are in quadrant D.

### CPFIS-Included Unit Trusts



## CPFIS-Included ILPs



Over the past 3 years, 28.9% of the ILPs belong to quadrant A while 39.2% of the CPFIS-included ILPs had below-average returns but above-average risk, hence falling into quadrant D.

To see the full list of funds that fall into each quadrant, please refer to Appendix 1.

## PERFORMANCE RANKING: S&P FUND STARS

### 1. Background

Standard & Poor's Fund Services developed its S&P Fund Stars over a decade ago with two objectives in mind: firstly, to establish a global performance measurement methodology; and secondly, to assist investors in evaluating the return and risk management performance of investment funds.

Since then, S&P Fund Stars has become the industry standard for quantitative performance measurement. The calculation of S&P Fund Stars is robust yet simple and globally applicable: a fund's monthly performance relative to its sector average (i.e. peer average) is calculated for each of the 36 months over the 3 years to date. The average and volatility of these 36 numbers are then converted in a S&P Fund Stars ranking.

The distribution of the S&P Fund Stars is as follows:

|       |                          |
|-------|--------------------------|
| ★★★★★ | Top 10% of the sector    |
| ★★★★  | Top 11-30% of the sector |
| ★★★   | Top 31-50% of the sector |
| ★★    | Next 25% of the sector   |
| ★     | Bottom 25% of the sector |

It must be noted that to be eligible for a S&P Fund Stars ranking, the fund must possess a minimum of 3 years' investment history and be in sector where 5 or more funds meet this minimum investment history requirement. The calculation of S&P Fund Stars is based on the entire universe of unit trusts and ILPs that are registered for sale in Singapore and not only limited to CPFIS-included funds.

### 2. S&P Fund Stars for CPFIS-Included Unit Trusts & ILPs

#### CPFIS-Included Unit Trusts

| S&P Fund Stars | Number of Funds |
|----------------|-----------------|
| ★★★★★          | 5               |
| ★★★★           | 16              |
| ★★★            | 16              |
| ★★             | 18              |
| ★              | 15              |

#### CPFIS-Included ILPs

| S&P Fund Stars | Number of ILPs |
|----------------|----------------|
| ★★★★★          | 1              |
| ★★★★           | 6              |
| ★★★            | 8              |
| ★★             | 7              |
| ★              | 5              |

### 3. Full List of CPFIS-Included Unit Trusts & ILPs with S&P Fund Stars

| CPFIS - Included Unit Trusts     | S&P Fund Stars | General Sector               | CPFIS Risk Classification |
|----------------------------------|----------------|------------------------------|---------------------------|
| <b>5 Stars</b>                   |                |                              |                           |
| Aberdeen Pacific Equity          | ★★★★★          | Equity Far East & Pac Ex Jap | Higher Risk               |
| Aberdeen Singapore Equity        | ★★★★★          | Equity Singapore             | Higher Risk               |
| ACMIF Global Growth Trends A     | ★★★★★          | Equity Global                | Higher Risk               |
| First State Asia-Pacific Growth  | ★★★★★          | Equity Far East & Pac Ex Jap | Higher Risk               |
| UOB United Millennium 1          | ★★★★★          | Asset Allocation Gbl Neutral | Medium to High Risk       |
| <b>4 Stars</b>                   |                |                              |                           |
| AIG Int Fds Asian Equities       | ★★★★           | Equity Far East & Pac Ex Jap | Higher Risk               |
| DBS Shenton Dynamic Bond         | ★★★★           | Fixed Income Global          | Low to Medium Risk        |
| DBS Shenton Thrift               | ★★★★           | Equity Singapore             | Higher Risk               |
| Deutsche Asia Premier Trust      | ★★★★           | Equity Far East & Pac Ex Jap | Higher Risk               |
| First State Regional China       | ★★★★           | Equity Greater China         | Higher Risk               |
| Five Arrows Asian Enterprise     | ★★★★           | Equity Far East & Pac Ex Jap | Higher Risk               |
| Five Arrows Worldwide Enterprise | ★★★★           | Equity Global                | Higher Risk               |
| Franklin Templeton F-Global Gth  | ★★★★           | Equity Global                | Higher Risk               |
| Horizon Asia Ex-Japan Equity     | ★★★★           | Equity Far East & Pac Ex Jap | Higher Risk               |
| Horizon Japanese Equity          | ★★★★           | Equity Japan                 | Higher Risk               |
| OCBC Savers Global Bond          | ★★★★           | Fixed Income Global          | Low to Medium Risk        |
| Schroder Asian Growth Fund       | ★★★★           | Equity Far East & Pac Ex Jap | Higher Risk               |
| Schroder Singapore Trust         | ★★★★           | Equity Singapore             | Higher Risk               |
| UOB United Asia                  | ★★★★           | Equity Far East & Pac Ex Jap | Higher Risk               |
| UOB United International Growth  | ★★★★           | Equity Global                | Higher Risk               |
| UOB United Japan Growth          | ★★★★           | Equity Japan                 | Higher Risk               |
| <b>3 Stars</b>                   |                |                              |                           |
| AIG Int Fds American Equities    | ★★★            | Equity USA                   | Higher Risk               |
| Citi Global Bond                 | ★★★            | Fixed Income Global          | Low to Medium Risk        |
| DBS Shenton Asia Pacific         | ★★★            | Equity Far East & Pac Ex Jap | Higher Risk               |
| Five Arrows SEA Special Sits     | ★★★            | Equity Far East & Pac Ex Jap | Higher Risk               |
| Franklin Templeton F-Asian Grth  | ★★★            | Equity Far East & Pac Ex Jap | Higher Risk               |
| Franklin Templeton F-China       | ★★★            | Equity Greater China         | Higher Risk               |
| Franklin Templeton F-Global Bal  | ★★★            | Asset Allocation Gbl Neutral | Medium to High Risk       |
| Horizon Global Equity            | ★★★            | Equity Global                | Higher Risk               |
| OCBC Savers China Growth         | ★★★            | Equity Greater China         | Higher Risk               |
| Optimix Worlwide Equity          | ★★★            | Equity Global                | Higher Risk               |
| Schroder European Equity         | ★★★            | Equity Europe                | Higher Risk               |
| UOB Unifund                      | ★★★            | Equity Malaysia & Singapore  | Higher Risk               |
| UOB United European Equity       | ★★★            | Equity Europe                | Higher Risk               |
| UOB United Growth                | ★★★            | Equity Singapore             | Higher Risk               |
| UOB United Millennium 2          | ★★★            | Asset Allocation Gbl Neutral | Medium to High Risk       |
| UOB United Millennium 3          | ★★★            | Asset Allocation Gbl Dynamic | Higher Risk               |
| <b>2 Stars</b>                   |                |                              |                           |
| Aberdeen Japan Equity            | ★★             | Equity Japan                 | Higher Risk               |
| AIG Int Fds Multi Currency Bond  | ★★             | Fixed Income Global          | Low to Medium Risk        |
| Deutsche Premier Select          | ★★             | Asset Allocation Gbl Neutral | Medium to High Risk       |
| Dresdner Asia Tiger              | ★★             | Equity Far East & Pac Ex Jap | Higher Risk               |
| Dresdner Intl Prov European Eqty | ★★             | Equity Europe                | Higher Risk               |
| First State Global 100 Growth    | ★★             | Equity Global                | Higher Risk               |
| First State Global Balanced      | ★★             | Asset Allocation Gbl Neutral | Medium to High Risk       |
| First State Singapore Growth     | ★★             | Equity Malaysia & Singapore  | Higher Risk               |
| Horizon US Equity                | ★★             | Equity USA                   | Higher Risk               |
| HSBC Global Growth               | ★★             | Equity Global                | Higher Risk               |
| Indocam Asia Vision              | ★★             | Equity Far East & Pac Ex Jap | Higher Risk               |
| Keppel South East Asia           | ★★             | Equity Far East & Pac Ex Jap | Higher Risk               |
| OCBC Asia Pacific                | ★★             | Equity Far East & Pac Ex Jap | Higher Risk               |
| OCBC Savers Global Trust         | ★★             | Equity Global                | Higher Risk               |
| OCBC Savers Singapore Trust      | ★★             | Equity Singapore             | Higher Risk               |
| Optimix Asian Equity             | ★★             | Equity Far East & Pac Ex Jap | Higher Risk               |
| Optimix Worlwide Bond            | ★★             | Fixed Income Global          | Low to Medium Risk        |
| UOB United Greater China         | ★★             | Equity Greater China         | Higher Risk               |
| <b>1 Star</b>                    |                |                              |                           |
| ABN AMRO Star Europe Equity      | ★              | Equity Europe                | Higher Risk               |
| DBS Japan Growth                 | ★              | Equity Japan                 | Higher Risk               |
| DBS Mendaki Global               | ★              | Equity Global                | Higher Risk               |
| DBS Shenton Global Opportunities | ★              | Equity Global                | Higher Risk               |
| Dresdner Intl Prov Glb Balanced  | ★              | Asset Allocation Gbl Neutral | Medium to High Risk       |
| Five Arrows Global Bond Trust    | ★              | Fixed Income Global          | Low to Medium Risk        |
| Franklin Templeton F-Asian DevEq | ★              | Equity Far East & Pac Ex Jap | Higher Risk               |
| Horizon Global Bond SGD          | ★              | Fixed Income Global          | Low to Medium Risk        |
| Horizon Singapore Equity         | ★              | Equity Singapore             | Higher Risk               |
| HSBC Asian Growth                | ★              | Equity Far East & Pac Ex Jap | Higher Risk               |
| HSBC Global Fixed Income         | ★              | Fixed Income Global          | Low to Medium Risk        |
| Keppel Asia Blue Chip            | ★              | Equity Far East & Pac Ex Jap | Higher Risk               |
| Optimix Singapore Equity         | ★              | Equity Singapore             | Higher Risk               |
| Schroder Balanced Growth         | ★              | Asset Allocation Gbl Neutral | Medium to High Risk       |
| Schroder Global Enterprise       | ★              | Equity Global                | Higher Risk               |



| CPFS - Included ILPs         | S&P Fund Stars | General Sector                 | CPFIS Risk Classification |
|------------------------------|----------------|--------------------------------|---------------------------|
| <b>5 Stars</b>               |                |                                |                           |
| Aviva MM Capital Growth      | ★★★★★          | Equity Far East & Pac Ex Jap   | Higher Risk               |
| <b>4 Stars</b>               |                |                                |                           |
| AXA Life-Dynamic Growth      | ★★★★           | Equity Global                  | Higher Risk               |
| Prulink Asian Eqty           | ★★★★           | Equity Far East & Pac Ex Jap   | Higher Risk               |
| Aviva MM Income Growth       | ★★★★           | Asset Allocation FE&Pac Ex Jap | Medium to High Risk       |
| John Hancock Pacific Finance | ★★★★           | Equity Far East & Pac Ex Jap   | Higher Risk               |
| UOB Lifelink Global          | ★★★★           | Equity Global                  | Higher Risk               |
| Prulink Singapore Cash       | ★★★★           | Money Market SGD               | Lower Risk                |
| <b>3 Stars</b>               |                |                                |                           |
| Greatlink Cash               | ★★★            | Money Market SGD               | Lower Risk                |
| Aviva MM Balanced Growth     | ★★★            | Asset Allocation FE&Pac Ex Jap | Medium to High Risk       |
| OAC Premier Link Equity      | ★★★            | Equity Far East & Pac Ex Jap   | Higher Risk               |
| Prulink Global Equity        | ★★★            | Equity Global                  | Higher Risk               |
| NTUC Global Equity           | ★★★            | Equity Global                  | Higher Risk               |
| Golden Asia Growth           | ★★★            | Equity Far East & Pac Ex Jap   | Higher Risk               |
| AIA Regional Equity          | ★★★            | Equity Far East & Pac Ex Jap   | Higher Risk               |
| OAC Premier Link Balanced    | ★★★            | Asset Allocation FE&Pac Ex Jap | Medium to High Risk       |
| <b>2 Stars</b>               |                |                                |                           |
| John Hancock Worldwide Eqty  | ★★             | Equity Global                  | Higher Risk               |
| UOB Lifelink Asian           | ★★             | Equity Far East & Pac Ex Jap   | Higher Risk               |
| NTUC Enhanced                | ★★             | Asset Allocation FE&Pac Ex Jap | Medium to High Risk       |
| John Hancock Singapore Cash  | ★★             | Money Market SGD               | Lower Risk                |
| Greatlink Enhancer           | ★★             | Equity Far East & Pac Ex Jap   | Higher Risk               |
| Keppel Global Leaders        | ★★             | Equity Global                  | Higher Risk               |
| AXA Life-Value Growth        | ★★             | Equity Far East & Pac Ex Jap   | Higher Risk               |
| <b>1 Star</b>                |                |                                |                           |
| Keppel Asia Growth           | ★              | Equity Far East & Pac Ex Jap   | Higher Risk               |
| NTUC Prime                   | ★              | Asset Allocation FE&Pac Ex Jap | Medium to High Risk       |
| Takaful Global Fund          | ★              | Equity Global                  | Higher Risk               |
| NTUC Takaful                 | ★              | Equity Far East & Pac Ex Jap   | Higher Risk               |
| OAC Premier Link Money       | ★              | Money Market SGD               | Lower Risk                |

For details on the methodology of the CPF Classification, please refer to Appendix 3.

## FURTHER INFORMATION

Additional information can be found in the appendices:

- *Appendix 1:* Complete List of Funds in Each Quadrant of the Risk/Return Chart
- *Appendix 2:* S&P Fund Stars Methodology
- *Appendix 3:* Investment Terminology Definition

For a soft copy of this report as well as the most-to-date performance data on CPFIS-included unit trusts and ILPs, please visit the Life Insurance Association (LIA)'s website at <http://asp.lia.org.sg/NewsPress.asp> or Investment Management Association of Singapore (IMAS)'s website at <http://www.imas.org.sg/fundinfo.html>.

### NOTE

All returns are calculated on a bid-to-bid basis in SGD, with gross income re-invested and net of management fees.

### DISCLAIMERS

The data provided in this report is for information only and not deemed to be financial advice or offer to sell, or a solicitation or an offer to buy or subscribe to or hold any fund.

Past performance is not indicative of future performance. All investments involve risk – in other words, the price of units and income from them can go down as well as up. Before investing in any fund, investors should carefully read the literature about the fund, including its Explanatory Memorandum.

All data contained in this report has been provided to Standard & Poor's Fund Services by the management groups or insurers who manage the unit trusts or ILPs that are included in the CPFIS. In particular, S&P cannot be held responsible for the accuracy of the benchmark return and expense ratio information supplied by the groups. While Standard & Poor's Fund Services has made reasonable endeavours to ensure the accuracy of all other pieces of information obtained, it does not accept any responsibility with regards to the accuracy or completeness of the information provided or any liability for the investment decisions of investors or any loss arising therefrom.

# APPENDIX 1

## Complete List of Funds in Each of the Four Quadrants of the Risk/Return Chart

### 1) CPFIS-Included Unit Trusts

| Singapore Unit Trusts                    | 30/09/1999<br>30/09/2002<br>Annual Avg | 30/09/1999<br>30/09/2002<br>Ann Volatility | CPFIS<br>Risk<br>Classification | CPFIS<br>General<br>Focus | CPFIS<br>Narrow<br>Focus | General<br>Sector             |
|--|--|--|---------------------------------|---------------------------|--------------------------|-------------------------------|
| <b>Quadrant A</b>                        |  |  |                                 |                           |                          |                               |
| Aberdeen Malaysia Equity                 | 6.65                                   | 16.17                                      | Higher Risk                     | Narrowly Focused          | Country-Others           | Equity Malaysia               |
| Aberdeen Pacific Equity                  | 4.89                                   | 19.42                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan  |
| ACMIF International HealthCare A         | -0.87                                  | 14.86                                      | Higher Risk                     | Narrowly Focused          | Healthcare               | Sector - Healthcare Global    |
| AIG Int Fds Multi Currency Bond          | 2.94                                   | 6.34                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income Global (Other)   |
| Citi Global Bond                         | 4.15                                   | 3.44                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income Global (Other)   |
| CitiBond Singapore A                     | 4.64                                   | 1.91                                       | Lower Risk                      | Broadly Diversified       | N/A                      | Fixed Income SGD              |
| CitiSelect Asia Tilt Balanced            | -1.70                                  | 11.33                                      | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral    |
| CitiSelect Asia Tilt Growth              | -6.00                                  | 16.06                                      | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Dynamic    |
| CitiSelect Global Growth                 | -7.03                                  | 13.37                                      | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Dynamic    |
| DBS Shenton Dynamic Bond                 | 4.77                                   | 5.31                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income Global (Other)   |
| Deutsche Lion Bond                       | 4.32                                   | 1.36                                       | Lower Risk                      | Broadly Diversified       | N/A                      | Fixed Income SGD              |
| Deutsche Premier Select                  | -4.34                                  | 11.55                                      | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral    |
| First State Global Balanced              | -7.64                                  | 19.07                                      | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral    |
| Rothschild Five Arrows Global Bond Trust | 1.42                                   | 5.88                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income Global (Other)   |
| Franklin Templeton F-Gbl Sm Co           | -6.61                                  | 16.19                                      | Higher Risk                     | Narrowly Focused          | Small Cap                | Smllr Companies Global        |
| Franklin Templeton F-Global Bal          | -2.51                                  | 11.40                                      | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral    |
| Henderson European Property Sec          | -0.33                                  | 13.44                                      | Higher Risk                     | Narrowly Focused          | Sector-Others            | Sector - Prop Shrs Europe     |
| DBS Horizon Global Bond SGD              | 2.04                                   | 2.93                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income Global (Other)   |
| DBS Horizon Singapore Fixed Inc Enh      | 3.66                                   | 1.79                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income SGD              |
| HSBC Global Fixed Income                 | 1.84                                   | 6.08                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income Global (Other)   |
| Keppel Singapore Balanced                | -0.74                                  | 16.93                                      | Medium to High Risk             | Narrowly Focused          | Country                  | Asset Alloc Singapore Neutral |
| OCBC Savers Global Bond                  | 4.82                                   | 3.01                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income Global (Other)   |
| Optimix SGD Fund                         | 2.89                                   | 0.91                                       | Lower Risk                      | Broadly Diversified       | N/A                      | Short Term Bd SGD             |
| Optimix Worldwide Bond                   | 2.77                                   | 4.59                                       | Low to Medium Risk              | Broadly Diversified       | N/A                      | Fixed Income Global (Other)   |
| Schroder Global Smaller Co's             | 1.05                                   | 19.36                                      | Higher Risk                     | Narrowly Focused          | Small Cap                | Smllr Companies Global        |
| UOB United Millennium 1                  | -0.18                                  | 8.13                                       | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral    |
| UOB United Millennium 2                  | -3.68                                  | 11.10                                      | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral    |
| UOB United Millennium 3                  | -7.58                                  | 16.10                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Asset Alloc Global Dynamic    |
| <b>Quadrant B</b>                        |  |  |                                 |                           |                          |                               |
| Aberdeen Indonesia Equity                | 8.10                                   | 36.87                                      | Higher Risk                     | Narrowly Focused          | Country-Others           | Equity Indonesia              |
| Aberdeen Singapore Equity                | -1.82                                  | 22.24                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Singapore              |
| Aberdeen Thailand Equity                 | 9.94                                   | 24.00                                      | Higher Risk                     | Narrowly Focused          | Country-Others           | Equity Thailand               |
| ACMIF Global Growth Trends A             | -5.59                                  | 20.37                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                 |
| AIG Int Fds Asian Equities               | -7.78                                  | 25.00                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan  |
| DBS Shenton Thrift                       | -7.32                                  | 26.96                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Singapore              |
| Deutsche Asia Premier Trust              | -6.82                                  | 23.78                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan  |
| First State Asia-Pacific Growth          | -1.91                                  | 29.18                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan  |
| First State Regional China               | -3.81                                  | 27.31                                      | Higher Risk                     | Narrowly Focused          | Greater China            | Equity Greater China          |
| Rothschild Five Arrows Asian Enterprise  | -6.54                                  | 29.40                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan  |
| Franklin Templeton F-China               | -1.43                                  | 20.29                                      | Higher Risk                     | Narrowly Focused          | Greater China            | Equity Greater China          |
| DBS Horizon Asia Ex-Japan Equity         | -6.21                                  | 21.99                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan  |
| OCBC Savers China Growth                 | -7.09                                  | 26.71                                      | Higher Risk                     | Narrowly Focused          | Greater China            | Equity Greater China          |
| Schroder Asian Growth Fund               | -6.53                                  | 25.50                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan  |
| Schroder Singapore Trust                 | -4.80                                  | 27.27                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Singapore              |
| UOB United Asia                          | -6.02                                  | 25.94                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan  |
| UOB United Greater China                 | -7.38                                  | 27.19                                      | Higher Risk                     | Narrowly Focused          | Greater China            | Equity Greater China          |
| <b>Quadrant C</b>                        |  |  |                                 |                           |                          |                               |
| Aberdeen Japan Equity                    | -16.00                                 | 18.12                                      | Higher Risk                     | Narrowly Focused          | Japan                    | Equity Japan                  |
| AIG Int Fds American Equities            | -12.35                                 | 19.28                                      | Higher Risk                     | Narrowly Focused          | North America            | Equity USA                    |
| Dresdner Intl Prov Glb Balanced          | -11.31                                 | 9.73                                       | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral    |
| Franklin Templeton F-Global Gth          | -9.78                                  | 14.67                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                 |
| DBS Horizon Global Equity                | -13.03                                 | 17.39                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                 |
| DBS Horizon UK Equity                    | -12.33                                 | 14.77                                      | Higher Risk                     | Narrowly Focused          | UK                       | Equity United Kingdom         |
| DBS Horizon US Equity                    | -15.61                                 | 18.99                                      | Higher Risk                     | Narrowly Focused          | North America            | Equity USA                    |
| HSBC Global Growth                       | -16.09                                 | 18.22                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                 |
| OCBC Savers Global Trust                 | -14.48                                 | 17.73                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                 |
| Schroder Balanced Growth                 | -8.52                                  | 10.79                                      | Medium to High Risk             | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral    |
| Schroder European Equity                 | -13.04                                 | 18.80                                      | Higher Risk                     | Narrowly Focused          | Europe                   | Equity Europe                 |
| Schroder Global Enterprise               | -18.38                                 | 19.15                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                 |
| Schroder Pan Asia Fund                   | -9.32                                  | 19.45                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific           |
| UOB United European Equity               | -13.89                                 | 17.56                                      | Higher Risk                     | Narrowly Focused          | Europe                   | Equity Europe                 |

## 1) CPFIS-Included Unit Trusts (Con't)

| Singapore Unit Trusts                       | 30/09/1999<br>30/09/2002<br>Annual Avg | 30/09/1999<br>30/09/2002<br>Ann Volatility | CPFIS<br>Risk<br>Classification | CPFIS<br>General<br>Focus | CPFIS<br>Narrow<br>Focus | General<br>Sector            |
|---|--|--|---------------------------------|---------------------------|--------------------------|------------------------------|
| <b>Quadrant D</b>                           |  |  |                                 |                           |                          |                              |
| Aberdeen Continental Europe Eqty            | -11.85                                 | 21.20                                      | Higher Risk                     | Narrowly Focused          | Europe                   | Equity Europe ex UK          |
| Aberdeen Philippine Equity                  | -25.55                                 | 24.90                                      | Higher Risk                     | Narrowly Focused          | Country-Others           | Equity Philippines           |
| ABN AMRO Star Europe Equity                 | -16.31                                 | 20.97                                      | Higher Risk                     | Narrowly Focused          | Europe                   | Equity Europe                |
| CitiSelect Asia Tilt Enhanced Gr            | -10.47                                 | 20.14                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Asset Alloc Global Dynamic   |
| DBS Japan Growth                            | -21.26                                 | 23.34                                      | Higher Risk                     | Narrowly Focused          | Japan                    | Equity Japan                 |
| DBS Mendaki Global                          | -25.36                                 | 22.75                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                |
| DBS Shenton Asia Pacific                    | -8.74                                  | 26.51                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| DBS Shenton Global Opportunities            | -21.31                                 | 21.06                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                |
| Dresdner Asia Tiger                         | -9.97                                  | 27.76                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| Dresdner Intl Prov European Eqty            | -18.37                                 | 26.29                                      | Higher Risk                     | Narrowly Focused          | Europe                   | Equity Europe                |
| Dresdner Intl Prov Global Tech              | -29.56                                 | 37.23                                      | Higher Risk                     | Narrowly Focused          | Technology               | Sector - TMT Global          |
| First State Global 100 Growth               | -15.21                                 | 25.62                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                |
| First State Singapore Growth                | -10.03                                 | 28.00                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Malaysia & Singapore  |
| Rothschild Five Arrows SEA Special Sits     | -8.75                                  | 24.88                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| Rothschild Five Arrows Worldwide Enterprise | -10.58                                 | 22.87                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                |
| Franklin Templeton F-Asian DevEq            | -17.40                                 | 21.82                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| Franklin Templeton F-Asian Grth             | -8.84                                  | 22.16                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| Franklin Templeton F-Emerg Mkts             | -9.16                                  | 22.34                                      | Higher Risk                     | Narrowly Focused          | Emerging Markets         | Equity Global Emerging Mkts  |
| Franklin Templeton F-Korea                  | -18.97                                 | 37.52                                      | Higher Risk                     | Narrowly Focused          | Country-Others           | Equity Korea                 |
| Franklin Templeton F-Thailand               | -10.22                                 | 37.95                                      | Higher Risk                     | Narrowly Focused          | Country-Others           | Equity Thailand              |
| Henderson Global Technology                 | -27.15                                 | 55.81                                      | Higher Risk                     | Narrowly Focused          | Technology               | Sector - TMT Global          |
| DBS Horizon Japanese Equity                 | -14.04                                 | 20.41                                      | Higher Risk                     | Narrowly Focused          | Japan                    | Equity Japan                 |
| DBS Horizon Singapore Equity                | -13.81                                 | 25.01                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Singapore             |
| HSBC Asian Growth                           | -14.31                                 | 28.15                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| Indocam Asia Vision                         | -9.75                                  | 24.34                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| Keppel Asia Blue Chip                       | -11.75                                 | 24.61                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| Keppel South East Asia                      | -9.24                                  | 23.17                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| OCBC Asia Pacific                           | -10.28                                 | 25.23                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| OCBC Savers Singapore Trust                 | -11.62                                 | 26.20                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Singapore             |
| Optimix Asian Equity                        | -10.52                                 | 25.87                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan |
| Optimix Singapore Equity                    | -12.99                                 | 25.77                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Singapore             |
| Optimix Worldwide Equity                    | -13.60                                 | 21.83                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                |
| UOB Unifund                                 | -8.28                                  | 21.71                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Malaysia & Singapore  |
| UOB United Global Technology                | -23.17                                 | 38.65                                      | Higher Risk                     | Narrowly Focused          | Technology               | Sector - TMT Global          |
| UOB United Growth                           | -8.27                                  | 24.41                                      | Higher Risk                     | Narrowly Focused          | Singapore                | Equity Singapore             |
| UOB United International Growth             | -8.76                                  | 20.40                                      | Higher Risk                     | Broadly Diversified       | N/A                      | Equity Global                |
| UOB United Japan Growth                     | -13.62                                 | 26.80                                      | Higher Risk                     | Narrowly Focused          | Japan                    | Equity Japan                 |
| UOB United Regional Growth                  | -9.95                                  | 22.02                                      | Higher Risk                     | Narrowly Focused          | Asia                     | Equity Asia Pacific          |

## 2) CPFIS-Included ILPs

| Singapore Insurance Linked             | 30/09/1999 | 30/09/1999     | CPFIS<br>Classification | CPFIS<br>General<br>Focus | CPFIS<br>Narrow<br>Focus | S&P<br>Sector<br>Name                   |
|--|------------|----------------|-------------------------|---------------------------|--------------------------|---|
|  | 30/09/2002 | 30/09/2002     |                         |                           |                          |   |
|  | Annual Avg | Ann Volatility |                         |                           |                          |   |
| <b>Quadrant A</b>                      |            |                |                         |                           |                          |   |
| AIA Regional Fixed Income              | 7.09       | 3.14           | Low to Medium Risk      | Broadly Diversified       | N/A                      | Fixed Income SGD                        |
| Aviva MM Balanced Growth               | -1.21      | 15.20          | Medium to High Risk     | Narrowly Focused          | Asia                     | Asset Alloc Asia Pac ex Japan Neutral   |
| Aviva MM Income Growth                 | 1.96       | 7.47           | Medium to High Risk     | Narrowly Focused          | Asia                     | Asset Alloc Asia Pac ex Japan Defensive |
| AXA Life-Assured Growth SGD            | 5.40       | 4.81           | Low to Medium Risk      | Narrowly Focused          | Regional                 | Fixed Income Global (Other)             |
| AXA Life-Balanced Growth               | -1.23      | 6.54           | Medium to High Risk     | Broadly Diversified       | N/A                      | Asset Alloc Global Defensive            |
| OUB Manulife Golden Balanced Growth    | -3.54      | 13.78          | Medium to High Risk     | Narrowly Focused          | Singapore                | Asset Alloc Global Neutral              |
| OUB Manulife Golden International Bond | 6.63       | 6.31           | Low to Medium Risk      | Broadly Diversified       | N/A                      | Fixed Income Global (Other)             |
| Greatlink Cash                         | 1.41       | 0.35           | Lower Risk              | Broadly Diversified       | N/A                      | Money Market SGD                        |
| Greatlink Global Supreme               | -3.55      | 12.21          | Medium to High Risk     | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral              |
| John Hancock Singapore Cash            | 0.43       | 0.21           | Lower Risk              | Broadly Diversified       | N/A                      | Money Market SGD                        |
| John Hancock Worldwide Bond            | 2.38       | 4.05           | Low to Medium Risk      | Broadly Diversified       | N/A                      | Fixed Income Global (Other)             |
| NTUC Trust                             | -4.32      | 13.84          | Medium to High Risk     | Narrowly Focused          | Singapore                | Asset Alloc Singapore Neutral           |
| Prulink Global Bond                    | 5.53       | 6.16           | Low to Medium Risk      | Broadly Diversified       | N/A                      | Fixed Income Global (Other)             |
| Prulink Global Managed                 | -3.28      | 7.71           | Medium to High Risk     | Broadly Diversified       | N/A                      | Asset Alloc Global Neutral              |
| Prulink Singapore Cash                 | 2.09       | 0.51           | Lower Risk              | Broadly Diversified       | N/A                      | Money Market SGD                        |
| <b>Quadrant B</b>                      |            |                |                         |                           |                          |   |
| Aviva MM Capital Growth                | -4.85      | 23.15          | Higher Risk             | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan            |
| Greatlink ASEAN Growth                 | -4.51      | 21.23          | Higher Risk             | Narrowly Focused          | Asia                     | Equity ASEAN                            |
| John Hancock Money Growth Plan         | -2.84      | 18.39          | Medium to High Risk     | Narrowly Focused          | Singapore                | Asset Alloc Singapore Neutral           |
| John Hancock Pacific Finance           | -3.77      | 23.56          | Higher Risk             | Narrowly Focused          | Sector-Others            | Equity Asia Pacific ex Japan            |
| John Hancock Pacific Harvest           | -4.50      | 23.02          | Medium to High Risk     | Narrowly Focused          | Asia                     | Asset Alloc Global Dynamic              |
| Prulink Asian Eqty                     | -5.65      | 26.74          | Higher Risk             | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan            |
| Prulink Singapore Managed              | -4.13      | 18.49          | Medium to High Risk     | Narrowly Focused          | Singapore                | Asset Alloc Singapore Neutral           |
| <b>Quadrant C</b>                      |            |                |                         |                           |                          |   |
| AXA Life-Capital Growth                | -8.16      | 13.66          | Medium to High Risk     | Broadly Diversified       | N/A                      | Asset Alloc Global Dynamic              |
| NTUC Prime                             | -7.69      | 14.20          | Medium to High Risk     | Narrowly Focused          | Asia                     | Asset Alloc Asia Pac ex Japan Neutral   |
| Prulink Global Equity                  | -12.40     | 15.05          | Higher Risk             | Broadly Diversified       | N/A                      | Equity Global                           |
| <b>Quadrant D</b>                      |            |                |                         |                           |                          |   |
| AIA Growth Fd                          | -7.41      | 18.68          | Medium to High Risk     | Narrowly Focused          | Singapore                | Equity Malaysia & Singapore             |
| AIA Regional Equity                    | -6.21      | 24.52          | Higher Risk             | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan            |
| AXA Life-Dynamic Growth                | -11.95     | 19.47          | Higher Risk             | Broadly Diversified       | N/A                      | Equity Global                           |
| AXA Life-Value Growth                  | -8.20      | 19.67          | Higher Risk             | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan            |
| Golden Asia Growth                     | -8.50      | 25.65          | Higher Risk             | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan            |
| Greatlink Enhancer                     | -9.89      | 24.56          | Higher Risk             | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan            |
| John Hancock Worldwide Eqty            | -14.59     | 20.56          | Higher Risk             | Broadly Diversified       | N/A                      | Equity Global                           |
| Keppel Asia Growth                     | -13.83     | 23.81          | Higher Risk             | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan            |
| Keppel Global Communication            | -22.08     | 35.71          | Higher Risk             | Narrowly Focused          | Technology               | Sector - TMT Global                     |
| Keppel Global Leaders                  | -14.82     | 24.95          | Higher Risk             | Broadly Diversified       | N/A                      | Equity Global                           |
| NTUC Enhanced                          | -7.83      | 19.26          | Medium to High Risk     | Narrowly Focused          | Asia                     | Asset Alloc Asia Pac ex Japan Dynamic   |
| NTUC Global Equity                     | -14.07     | 24.27          | Higher Risk             | Broadly Diversified       | N/A                      | Equity Global                           |
| NTUC Takaful                           | -18.69     | 22.17          | Higher Risk             | Broadly Diversified       | N/A                      | Equity Asia Pacific ex Japan            |
| Takaful Global Fund                    | -16.87     | 24.83          | Higher Risk             | Broadly Diversified       | N/A                      | Equity Global                           |
| UOB Lifelink Asian                     | -11.34     | 22.42          | Higher Risk             | Narrowly Focused          | Asia                     | Equity Asia Pacific ex Japan            |
| UOB Lifelink Global                    | -10.33     | 16.86          | Higher Risk             | Broadly Diversified       | N/A                      | Equity Global                           |
| UOB Lifelink Growth                    | -12.82     | 23.24          | Higher Risk             | Narrowly Focused          | Singapore                | Equity Malaysia & Singapore             |

# APPENDIX 2

## S&P Fund Stars Methodology

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To assist investors in evaluating the performance of a fund and the consistency of that performance relative to other funds in the sector, Standard and Poor's Fund Services has developed the S&P Fund Stars based on a fund's relative performance.

The S&P Fund Stars is calculated using a fund's monthly performance relative to its sector average for each of the 36 months over the past 3 years to date. The average and volatility of these 36 numbers is used to calculate the Fund Stars ranking.

To be eligible for the S&P Fund Stars, a fund must possess 3 years of investment history and belong to a sector that contain 5 or more funds all with a minimum investment history of 3 years as well.

### S&P Fund Stars Calculation

#### 1. RELATIVE PERFORMANCE

**Definition:** This is the performance of the fund less the performance of its sector average (average performance of its peers).

**Example:** If a fund rises 6% in a month and its sector average by 4% in the same month then the fund's relative performance is +2%. This number is calculated for each of the past 36 months.

#### 2. AVERAGE RELATIVE PERFORMANCE

**Definition:** By calculating the average of the fund's latest 36 monthly relative performance, we are measuring its tendency on average to out- or under-perform the other funds in its sector. The higher the average the more the fund has outperformed its peers over the past 36 months.

#### 3. VOLATILITY OF RELATIVE PERFORMANCE

**Definition:** Volatility (standard deviation) is a statistical method for measuring how much a series of values deviates (how much it moves up and down) from its average. By calculating the volatility of the fund's 36 monthly relative performance, we are measuring how consistently the fund has performed vis-à-vis its peers. The higher the volatility, the less consistent the fund's performance relative to its peers.

#### 4. RELATIVE RETURN / VOLATILITY RATIO

**Definition:** By dividing the fund's average relative performance by the volatility of its relative performance, we are measuring its ability to not only outperform its peers but to also do so consistently. The higher the ratio the greater the fund's ability to outperform its peers on a consistent basis.

|   |
|---|
| $\frac{\text{Average monthly relative performance over 3 years}}{\text{Volatility of monthly relative performance over 3 years}} = \text{Relative return / volatility ratio}$ |
|---|

## Allocation of the S&P Fund Stars

Suppose a sector contains 100 funds, then the S&P Fund Stars will be allocated as follows:

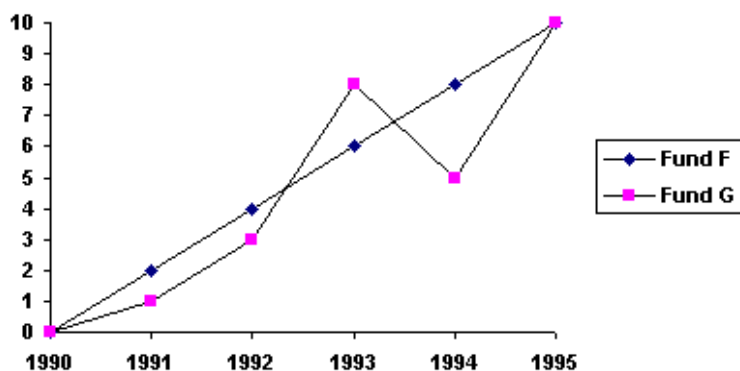
|       |            |          |
|-------|------------|----------|
| ★★★★★ | Top 10%    | 10 funds |
| ★★★★  | Top 11-30% | 20 funds |
| ★★★   | Top 31-50% | 20 funds |
| ★★    | Next 25%   | 25 funds |
| ★     | Bottom 25% | 25 funds |

## Examples

A fund with a ratio in the top 10% of its sector receives 5 Stars, whilst a fund with a ratio in the bottom 25% of its sector receives a 1 Star.

|        | Relative Return | Relative Volatility | Ratio | Rank | S&P Fund Stars |
|--------|-----------------|---------------------|-------|------|----------------|
| Fund A | 50%             | 5                   | 10.0  | 1    | ★★★★★          |
| Fund B | 30%             | 6                   | 5.0   | 4    | ★★             |
| Fund C | 10%             | 4                   | 2.5   | 5    | ★              |
| Fund D | 30%             | 4                   | 7.5   | 2    | ★★★★           |
| Fund E | 40%             | 6                   | 6.6   | 3    | ★★★            |

Funds with identical performance but different volatility will have different ratio. In the example below, the returns of Fund F and Fund G are identical, however our consistency analysis shows that the volatility of G is greater than F, therefore F has a higher S&P Fund Star ranking than G.



|        | Relative Return | Relative Volatility | Ratio | S&P Fund Stars |
|--------|-----------------|---------------------|-------|----------------|
| Fund F | 50%             | 5                   | 10.0  | ★★★★★          |
| Fund G | 50%             | 6                   | 8.3   | ★★★★           |

On the other hand, funds with different returns and risk levels can have the same S&P Fund Star ranking. As an illustration, although Funds H and J both have 3 stars, H has a higher return than J, while J has lower volatility.

|        | <b>Relative Return</b> | <b>Relative Volatility</b> | <b>Ratio</b> | <b>S&amp;P Fund Stars</b> |
|--------|------------------------|----------------------------|--------------|---------------------------|
| Fund H | 50%                    | 5                          | 10.0         | ☆☆☆                       |
| Fund J | 40%                    | 4                          | 10.0         | ☆☆☆                       |

From this example, we can see that despite their difference in return and volatility, the performance consistency experienced by each of the funds is identical, hence warranting the same S&P Fund Stars ranking.



# APPENDIX 3

## Investment Terminology Definition

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### Risk Classification

CPF Board's consultant, Mercer Investment Consulting, has developed a risk classification system for the CPFIS that assigns various risk levels to permitted investments. The unit trusts or ILPs with a greater proportion of their assets invested in the more volatile stock market will have a higher Equity Risk. Conversely, the greater the proportion of the fund's assets that are in bonds and cash, the lower its Equity Risk. Based on their level of Equity Risk, CPFIS-included unit trusts and ILPs will be assigned one of the following risk categories:

- Lower Risk
- Low to Medium Risk
- Medium to High Risk
- Higher Risk

As of September 30, 2002, the distribution of CPFIS-included investments in the 4 different risk categories is as below:

| Risk Classification | Unit Trusts | ILPs |
|---------------------|-------------|------|
| Higher Risk         | 137         | 77   |
| Medium to High Risk | 16          | 44   |
| Low to Medium Risk  | 51          | 30   |
| Lower Risk          | 4           | 6    |

Further information on the CPFIS Risk Classification System can be found in the handbook entitled "CPF Investment Scheme Risk Classification System – Investing to Match your Risk Profile" which can be obtained from any CPF office, agent bank or management group that is included in CPFIS. Alternatively, the handbook can also be downloaded from this link: [http://www.cpf.gov.sg/cpf\\_info/Publication/riskclas.asp](http://www.cpf.gov.sg/cpf_info/Publication/riskclas.asp).

### Quantitative Analysis

- **Expense Ratio:** The operating costs, including management fees, of a CPFIS-include unit trust or ILP expressed as a percentage of the fund's average net assets for a given time period. The expense ratio is furnished to Standard & Poor's Fund Services by the management groups and insurers, and is calculated according to the guidelines set out by the Investment Management Association of Singapore (IMAS).

In accordance to IMAS' guidelines, the expense ratio is calculated as the average of the annualized expense ratios of the two last 6-month periods, stated on an annualized basis. The formula for this calculation is given as follows:

$$\frac{\text{Expenses}}{\text{Net Asset Value}} \times 100\%$$

Items taken as expenses in the above calculation include, but are not limited to:

- Management fee
- Trustee fee
- Administration fee
- Custodian, sub-custodian and depository fees
- Registrar fees
- Printing & distribution costs
- Audit fees
- Amortized expenses
- GST on expenses
- Advertising expenses

On the issue of feeder funds, to ensure their comparability with direct investment funds, the expense ratio should look through the feeder structure and include all expenses incurred at both the Singapore and parent-fund level. The calculation guidelines for feeder funds' expense ratio are as follows:

- Annualized expense ratio for the Singapore feeder fund plus that of the parent-fund
- Both components of the expense ratio should be calculated in accordance to requirements specified above.

For further information, please refer to <http://www.imas.org.sg>

- **Gain/Loss Ratio:** This is the sum of positive percentage fund returns divided by the sum of negative percentage fund returns over the past 3 years to date. The higher the resultant ratio, the greater the proportion of positive returns versus negative returns, hence the better the fund's performance.
- **Information Ratio:** Information Ratio is calculated by taking the monthly difference between a fund's gross return and its benchmark return (in this case the sector average of the S&P sector into which the fund falls), and then dividing that figure by the standard deviation of the monthly differences. This ratio helps investors understand how well the fund has been managed on a risk-adjusted basis relative to its peers.
- **Maximum Loss:** The worst 3-month return produced by a fund over the past 3 years to date.
- **Sharpe Ratio:** Developed by William Sharpe, it is a measurement of a fund's annualized return that is in excess of the risk-free rate (a theoretical interest rate that would be returned on an investment which is completely free of risk) and adjusted for the fund's volatility. The calculation is as follows: (Fund Return – Risk-free Return)/Fund Standard Deviation. From this formula, it can be derived that the higher a fund's Sharpe ratio, the better its returns relative to the amount of investment risk it has taken.

The reason why this relationship between risk and return holds is very simple: the higher a fund's standard deviation, the larger the denominator of the Sharpe ratio, hence a larger numerator (fund's excess return) will be required to have a high Sharpe ratio. Conversely, a fund with moderate returns will have a relatively small numerator, however, should its volatility also be low, the fund's Sharpe ratio can still be quite high.

- ***Standard Deviation:*** A proxy for the risk level of a fund, standard deviation measures the annualized variability of a fund's returns. A high standard deviation indicates that a fund's returns have been volatile while a low figure would be the reverse.

**END OF REPORT**