

# 4TH QUARTER 2002 PERFORMANCE AND RISK MONITORING REPORT

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



January 27, 2003  
Standard & Poor's Fund Services Asia

**STANDARD**  
**& POOR'S**  
*Fund Services*

## TABLE OF CONTENTS

Section	Page
<b>Updates on CPFIS-Included Funds</b>	<b>1</b>
<b>Market Review</b>	<b>2</b>
1. Equities	2
2. Bonds	4
3. Currency	6
4. Performance of World-wide Indices	8
<b>Summary of Absolute Performance</b>	<b>9</b>
1. Average Absolute Performance	9
2. Overview of Average, Best & Worst Performance by Asset Class	11
3. Positive & Negative Returns Distributions for Unit Trusts & ILPs	12
<b>Summary of Risk-Adjusted Performance</b>	<b>13</b>
1. Risk-Return over Past 3 Years	13
<b>Performance Ranking: S&amp;P Fund Stars</b>	<b>15</b>
1. Background	15
2. S&P Fund Stars for CPFIS-Included Unit Trusts & ILPs	15
3. Full List of CPFIS-Included Unit Trusts & ILPs with S&P Fund Stars	16
<b>Further Information</b>	<b>19</b>
<i>Appendix 1: Complete List of Funds in Each Quadrant of the Risk/Return Chart</i>	
<i>Appendix 2: S&amp;P Fund Stars Methodology</i>	
<i>Appendix 3: Investment Terminology Definitions</i>	

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 December 31, 2002 (Q4 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 December 31, 2002, there are altogether 217 unit trusts and 159 investment-linked insurance products (ILPs) included under the CPF Investment Scheme.
- **New Products:** 13 new Unit Trusts and 2 new ILPs have been added to the CPFIS in Q4.
- **De-listed Products:** 4 Unit Trusts were de-listed from the CPFIS this quarter, namely Keppel Asia Blue Chip Fund, DBS Global Best Ideas Fund, ACM American Growth & Value Fund, and Franklin Templeton Funds – Asian Development Equity Fund which was merged into Franklin Templeton Funds – Asian Equity Fund.
- **Management Group Updates:** There are altogether 33 Fund Management Companies (FMCs) included in the CPFIS. The changes regarding the FMCs that have been implemented during Q4 include the following:
  - Dresdner Asset Management Singapore Ltd ("DAML") and its unit trusts have been transferred to Allianz Asset Management (Singapore) Ltd ("AAMS"). Upon the transfer, AAMS was renamed as Allianz Dresdner Asset Management Singapore Ltd ("ADAM"). DAML has been liquidated after the transfer.
  - The unit trusts managed by OUB Optimix Funds Management Ltd have been transferred to UOB Asset Management Ltd while the company itself was retired on January 1, 2003.
  - Merrill Lynch Investment Managers (Asia Pacific) Ltd was de-listed from the CPFIS on 20 November 2002.

## MARKET REVIEW

### 1. Equities

#### *Around the World*

2002 was a year to forget for global markets with most ending the year sharply lower, weighed down by a sluggish global economy, war tensions, corporate scandals, high-profile US bankruptcy filings, and weak corporate earnings. The markets started the year on a relatively good footing in Q1, but plunged in the subsequent two quarters, before recouping some of the losses in Q4.

Global markets rebounded in Q4 from oversold positions, as Iraq's war tensions eased temporarily. The rally that started in early October moved the US market up from five-year lows. The US market ended as the top performer among all major markets over the past quarter with the S&P 500 rising 7.9%. Despite the 4<sup>th</sup> quarter rally, global markets ended the year in negative territory. Germany's DAX Index suffered the sharpest decline, tumbling 43.9% last year as domestic economic woes added to the global economic and geopolitical concerns.

#### *In Asia*

Taking the lead from the US, most markets in Asia also ended the year lower after a strong Q1. The bearish contagion in the western markets and the sluggish global economy dented sentiment in Asia and cast doubts on their exports. Emerging markets like Thailand and Indonesia bucked the trend to end the year in positive territory.

Like the US, most markets in Asia bounced off October's lows in Q4. North Asia rebounded strongly in the first two months of the quarter but gave up some of the gains in the final month. The Bali bombings had minimal impact on the South East Asian markets, which did not take long to recover from the initial sell-off.

Thailand's SET was the top performer in the region over the past quarter and the past year, rising 7.4% and 17.3% over the respective periods. The Shanghai A and B shares bucked the global trend in Q4 and were the worst performers, declining by 14% and 21.5% respectively on high valuations. The Shanghai B Index also ended the year as the worst performer in the region, down 33.8%.

	<b>Dec 31, 2001</b>	<b>Sep 30, 2002</b>	<b>Dec 31, 2002</b>	<b>YoY chg</b>	<b>QoQ chg</b>
DJIA	10,021.50	7,591.93	8,341.63	-16.8%	9.9%
S&P 500	1,148.08	815.28	879.82	-23.4%	7.9%
FTSE 100	5,217.40	3,721.80	3,940.40	-24.5%	5.9%
DAX	5,160.10	2,769.03	2,892.63	-43.9%	4.5%
Topix	1,032.14	921.05	843.29	-18.3%	-8.4%
Hang Seng	11,397.21	9,072.21	9,321.29	-18.2%	2.7%
S&P/ASX 200	3,422.30	2,970.90	3,007.10	-12.1%	1.2%
Shanghai A	1,712.54	1,650.48	1,419.12	-17.1%	-14.0%
Shanghai B	171.53	144.58	113.51	-33.8%	-21.5%
TwN Stk Exchg	5,551.24	4,191.81	4,452.45	-19.8%	6.2%
KOSPI	693.70	646.42	627.55	-9.5%	-2.9%
STI	1,623.60	1,352.30	1,341.07	-17.4%	-0.8%
SET	303.85	331.79	356.48	17.3%	7.4%
KLCI	696.09	638.01	646.32	-7.1%	1.3%
Jkt Comp	392.04	419.31	424.95	8.4%	1.3%
Philip Comp	1,168.08	1,129.34	1,018.41	-12.8%	-9.8%

## 2. Bonds

### *Around the World*

JP Morgan Global Government Bond Index rose 12.52% in the 4th quarter, culminating a yearly return of 13.11%. US Treasuries continued to rally into Q4, down to 40-year record low yields, with 5yr touching 2.54% and 10yr 3.54% on Oct 9 before steadily rising in December. However, as tensions with North Korea rose along with increasing military build-up for possible US invasion of Iraq, Treasury prices spiked higher at the end of the year on safe-haven flows. 5yr US Treasury ended at 2.71%, down 159bps while 10yr closed at 3.79%, down 126bps for the year.

Overall, the year was dominated by many governments and central banks fighting the spectre of a double-dip recession and deflation fears, despite the fact that most economies did grow, albeit slowly. The beginning of 2002 had investors holding out hope for a US economic recovery pulling the world out from a mild recession. But as the year progressed, doubts increased as to the strength of the US recovery, causing bonds and equities to switch seats, with bonds rising rapidly at the expense of stocks.

The year was also peppered with event risks, ranging from further accounting scandals and record bankruptcies primarily by US telecom firms to months of uncertainty running up to the Brazil election and the tragic Bali bombing in October re-igniting fears of terrorist attacks around the world. Investors' confidence steadily eroded through the year, increasing the appeal of safe-haven government bonds. However, by the fourth quarter there were sporadic signs that the US economy was turning the corner, reviving investor confidence and thus a rebound in global stock markets, denting appetite for more "secure" bonds, with flows switching to corporate bonds in search of better yields and stocks for higher returns.

The US Federal Reserve surprised the market in November with a 50bp rate cut to 1.25%, hoping that this shock therapy would boost spending, production and employment as markets faced greater uncertainty with heightened geopolitical risks following a severe drop in consumer confidence. However, tensions with Iraq, nuclear weapons program revealed in North Korea and turmoil in Venezuela spiking oil prices to 26-month high of \$32.72 near year-end diluted the Fed's medicine.

In Europe, the European Central Bank left rates unchanged for the entire year until December, when it cut by 50bps to 2.75% as EU economies continued to slow and unemployment rose. German 10yr bond yields have fallen 80bps this year to 4.204% while French 10yr bond yields are down the same to 4.26%.

### *In Asia*

Looking back at the year 2002, the Japanese Government Bond (JGB) market was under pressure for the first three months, with the 10yr JGB yield rising above 1.50% in February. Domestic banks locked in profits before their fiscal year-end in March, and foreign investors sold JGBs due to concerns of a possible further downgrade of Japan's sovereign rating by rating agencies. At the end of May, international rating agency, Moody's, decided to downgrade Japan's yen-denominated domestic sovereign securities rating by two notches to

A2 from Aa3, and changed the outlook to stable from negative. However, since foreign investors had already fled out of JGBs, impact after the actual downgrade was limited. Instead, domestic investors, who were focusing on Japan's deflationary state, resumed active JGB buying. The 10y JGB yield fell to 1.00% in mid September.

The Bank of Japan's surprising announcement of a bank-held stock purchase program on September 18 and the first under-subscription of 10yr JGB auction on September 20 led the 10yr yield to rise to 1.30% that day. Nevertheless, while Japan's stock market remained sluggish and the Bank of Japan was expected to decide on additional monetary easing, investors took this as a good chance to buy. The yield soon resumed declining in October, and the Bank of Japan decided on additional monetary easing on October 30, including an increase in the bank's monthly JGB purchase operation. In mid-December, the government announced the total JGB issuance to the market in FY2003 will be Y112.7 trillion, a record high, but still slightly smaller than market expectations. This was regarded as a positive factor for bonds, and the 10yr yield touched 0.895% on December 30, the last trade day for the year.

In Asia ex-Japan, positive sovereign ratings momentum in 2002 was significant, with several countries enjoying upgrades due to progress in financial reforms, improved current accounts or a strong domestic consumer base: Korea moved up to A3/A-; Malaysia to Baa1/BBB+; and Thailand has a positive outlook on its rating. The only exception, the Philippines, has edged down to a negative outlook from S&P for its inability to rein in its ballooning budget deficit.

For most of 2002, Singapore bond market took its cue from US Treasuries with its yields falling steadily. However, the country's economy suffered badly in the second half of the year. Industrial production declined every month, while the economy actually shrank in Q3 and just managed to avert a recession by coming in fairly stable in Q4 to end the year 2.6% better. This boosted demand for safe-haven bonds and yields fell further than the US market. 5yr yields ended at 1.74%, down 168bps while 10yr bond yielded 2.55%, down 142bps for the year.

The South Korean bond market made reasonable gains as strong economic growth was accompanied by low inflation and bonds remained appealing since the strength of the US economy failed to live up to a strong rebound. The BoK left rates unchanged in 2002 as strong economic momentum began to wane in late Q3 along with geopolitical concerns despite of the strong domestic consumption, which led to a 6% growth in 2002. Thus bond gains were capped so that 3yr Treasuries eased just 14bps in Q4 and only 80bps for the year to 5.11%.

### 3. Currency

#### *Around the World*

The dollar ended 2002 on the back foot as concerns about the US market started to loom large. US economic data was reasonable but unconvincing and the currency weakened on war concerns, just as it did during the run-up to Gulf War I in 1990/91. A further 50bp rate cut from the Fed in November, bringing the tally of rate cuts this cycle to 525bp, did not help the dollar either. Despite the weakening path of the dollar, it should be noted that the Fed's broad trade-weighted index was off less than 4% over the year. Moreover, its value is still 40% higher than the 1995's lows when central banks engineered a stronger dollar at the Plaza Accord. It would be fair to say that the dollar may well have lost more were it not for the lack of compelling fundamentals behind other major currencies.

US Treasuries, though supported by safe-haven demand, still under-performed European bonds during the latter part of Q4, giving the EUR-USD pair a solid underpinning. Indeed, the euro seemed to finally break out of the malaise that has dogged it since its inception in January 1999, rallying to three-year highs versus the US dollar at 1.0440 in late December. That was a 6% rally for EUR-USD in Q4, and marks about a 60% retracement of the losses incurred since January 1999 to its all-time lows at 0.8225 made in October 2000. The strength of the euro belied the generally soggy fundamentals of the eurozone.

The dollar saw a similar magnitude of losses against most of the other main European currencies, such as sterling, with GBP-USD managing to trade above the 1.6000 level for the first time since 1999. The Swiss franc and the Norwegian krone were especially well supported, with the former supported by its status as the traditional safe-haven currency and the latter from its newly found status as a safe-haven unit.

The Norwegian krone was a star performer during the course of 2002. Investors were attracted by the most favourable interest rate differentials out of the G20 currencies with overnight base rates at 7% for much of the latter part of the year (until the Norges bank lopped 50bp off in December). Higher oil prices, seen during the latter half of Q4 in particular as war fears started to rise, was also supportive for the krone since Norway is a major oil exporting country.

#### *In Asia*

The yen firmed against the dollar over 2002, gaining almost a net 10% as USD-JPY sank to 118.75 from around the 131 levels. Much of this boils down to the weakness of the dollar, though a notable expansion in Japan's current account surplus helped see the yen firm in trade-weighted terms. Most recent data showed the current account surplus going up 9% year-on-year, standing at Y1168 billion. Improving exports, on the back of better economic growth in the US and other Asian nations, accounted for the rise in the surplus, more than offsetting a rise in imports. The firmness of the yen caused some headaches for the government and Ministry of Finance, which favour a weak yen to complement other stimulus and economic reform efforts. The BoJ spent about US\$30 billion in FX intervention between May and June, while the MoF continued making regular threats thereafter (though refraining from taking any action).

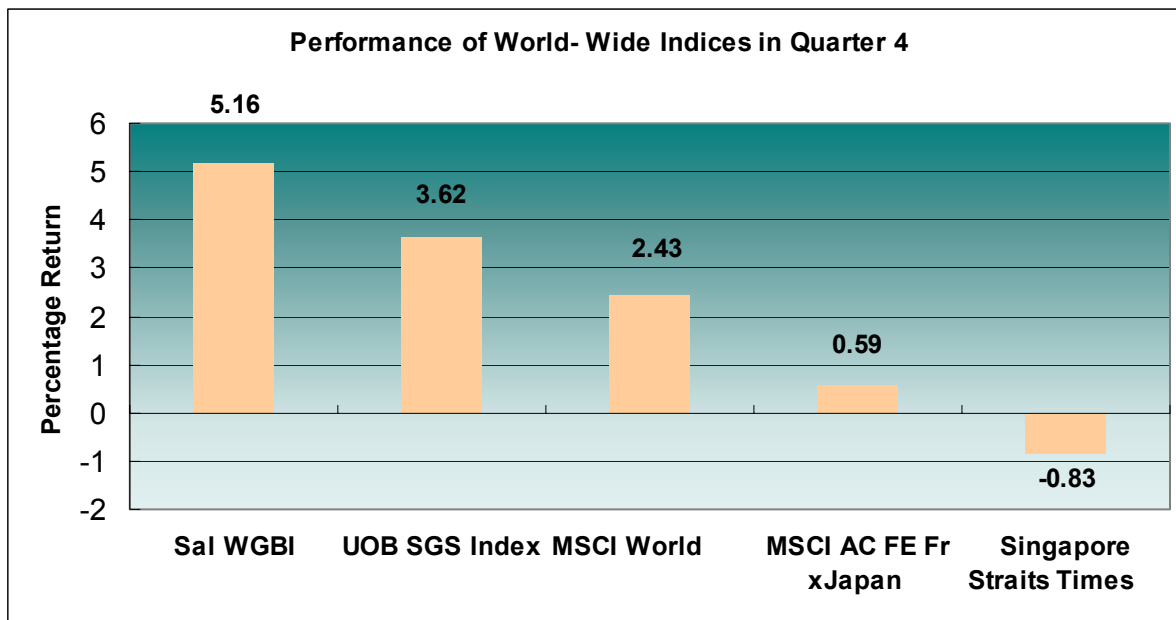


Another facet of the yen was witnessed during the latter stages of Q4, with the currency generally outperforming as geopolitical tensions rose. This reflects the tendency for currencies of net creditor nations, like Japan, to firm during periods of heightened risk aversion.

The Australian and New Zealand currencies managed to turn out better performances in 2002 following a two-year period of marked under-performance. AUD-USD rallied by about a net 9% and NZD-USD a more impressive 17%. The New Zealand dollar was stronger than its neighbour partly on concerns about the economic impact of Australia's drought, though firm underlying fundamentals and RBNZ interest rate hikes (which was a contrast to most central banks) gave it added appeal. Base New Zealand interest rates, at 5.75% after 100bp of tightening, rank as the second highest in the G20.

#### 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:

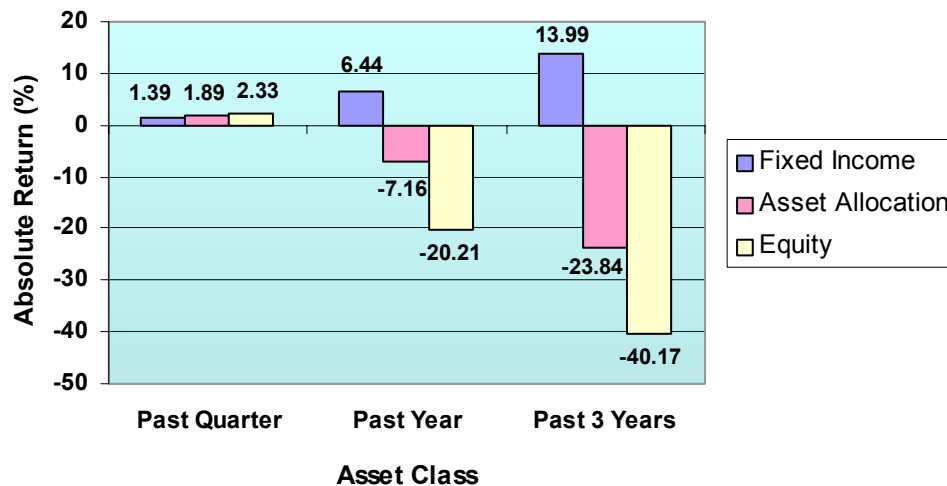
- **Ordinary:** 2.5%
- **Special:** 4.0%
- **Medisave:** 4.0%
- **Retirement:** 4.0%

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, CPFIS-included unit trusts produced an average return of 2.17%, with equity funds coming out as the best performer, their average return being 2.33% over the period.

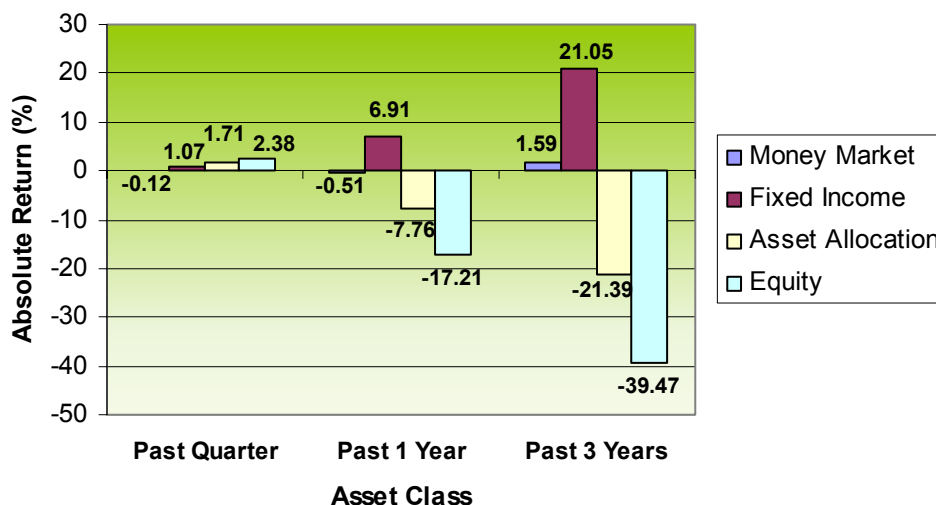
In the longer 1-year period, fixed income funds with an average return of 6.44% performed substantially better than the two other asset classes. Asset allocation funds and equity funds posted an average loss of 7.16% and 20.21% respectively. Average return of CPFIS-included unit trust is -15.51% over 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, 13.99%.

<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 Q4 is 2%. Amongst all the 4 asset classes, equity funds have done the best, delivering on average 2.38% in return.

Over the past year, fixed income funds have again outperformed the other categories with 6.91% in average return. Average returns for equity, asset allocation and money market funds in the same period are -17.21%, -7.76% and -0.51% respectively, with the overall return for CPFIS-included ILPs being, on average, a loss of 12.10%.

In the 3-year period, the average returns of asset allocation and equity funds are still in the negative region, being -21.39% and -39.47% respectively. The performance of the fixed income sector is encouraging over this timeframe with, on average, a return of 21.05%. Money market funds' average returns are also quite stable at 1.59%. The overall performance of CPFIS-included ILPs is -24.15% 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.

Singapore Unit Trusts	Last Quarter Absolute Return (%)	# of Funds	Last Year Absolute Return (%)	# of Funds	Last 3 Years Absolute Return (%)	# of Funds
<b>Fixed Income</b>						
Average Return	1.39	21	6.44	17	13.99	12
Best Performer	2.77		9.25		19.51	
Worst Performer	-1.24		1.07		8.95	
<b>Asset Allocation</b>						
Average Return	1.89	32	-7.16	29	-23.84	13
Best Performer	3.90		4.84		-3.70	
Worst Performer	-0.11		-20.87		-39.74	
<b>Equity</b>						
Average Return	2.33	155	-20.21	131	-40.17	77
Best Performer	20.00		34.84		22.89	
Worst Performer	-12.20		-61.81		-78.62	

### CPFIS-Included Unit Trusts

Singapore Insurance Linked	Last Quarter Absolute Return (%)	# of Funds	Last Year Absolute Return (%)	# of Funds	Last 3 Years Absolute Return (%)	# of Funds
<b>Fixed Income</b>						
Average Return	1.07	14	6.91	9	21.05	5
Best Performer	5.40		13.31		29.33	
Worst Performer	-2.78		-1.39		10.92	
<b>Asset Allocation</b>						
Average Return	1.71	47	-7.76	31	-21.39	14
Best Performer	5.28		2.78		1.63	
Worst Performer	-1.85		-18.50		-34.82	
<b>Equity</b>						
Average Return	2.38	91	-17.21	69	-39.47	24
Best Performer	17.83		7.03		-11.41	
Worst Performer	-6.99		-53.67		-64.54	
<b>Money Market</b>						
Average Return	-0.12	4	-0.51	4	1.59	4
Best Performer	0.34		1.22		6.39	
Worst Performer	-0.72		-3.32		-4.94	

### CPFIS-Included ILPs

For 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	152 (76%)	15(15%)
Funds with Negative Returns	47(24%)	87(85%)
<b>Singapore Insurance Linked</b>		
Funds with Positive Returns	117(77%)	9(20%)
Funds with Negative Returns	34(23%)	38(80%)

Over the past quarter, the percentage of funds with positive returns is 76% for unit trusts and 77% for ILPs. Equity funds, especially those that are invested into the TMT sectors, are a large part of this group of positive-return funds, which is a trend that is noticeably different from last quarter.

As for the longer 3-year period, the positive effect of the funds' performance in Q402 has yet to be felt: only 15% and 20% of all CPFIS-included unit trusts and ILPs respectively produced positive returns over this period. The funds that are in the positive territory are mostly from the following categories:

- Thailand and Malaysian equity markets
- Global fixed income markets
- Singapore fixed income markets
- Property markets

## SUMMARY OF RISK-ADJUSTED PERFORMANCE

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

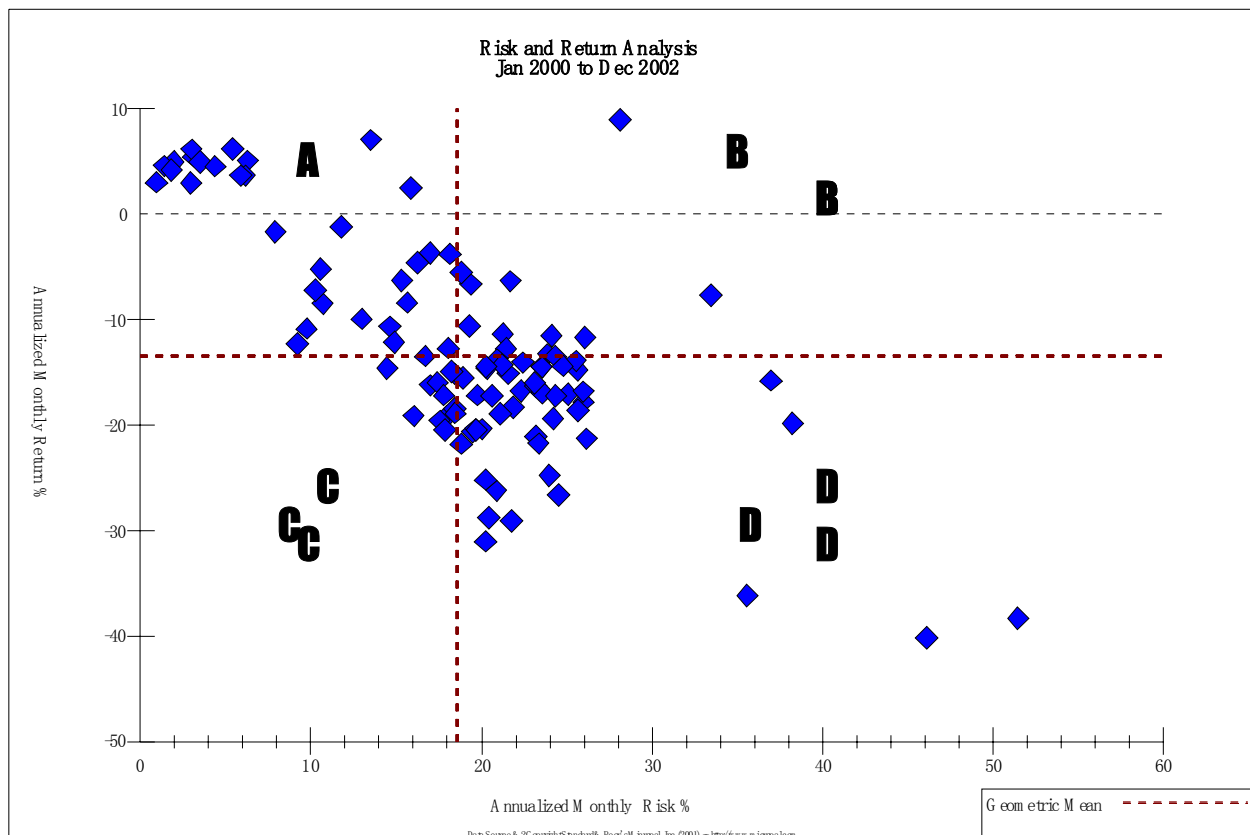
The scatterplots below compare the return performance of CPFIS-included unit trusts and ILPs against their risk level (i.e. volatility). Return performance is shown on the vertical axis and the funds' volatility is on the horizontal axis. Using the median lines (dotted in red) as divider, 4 distinct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

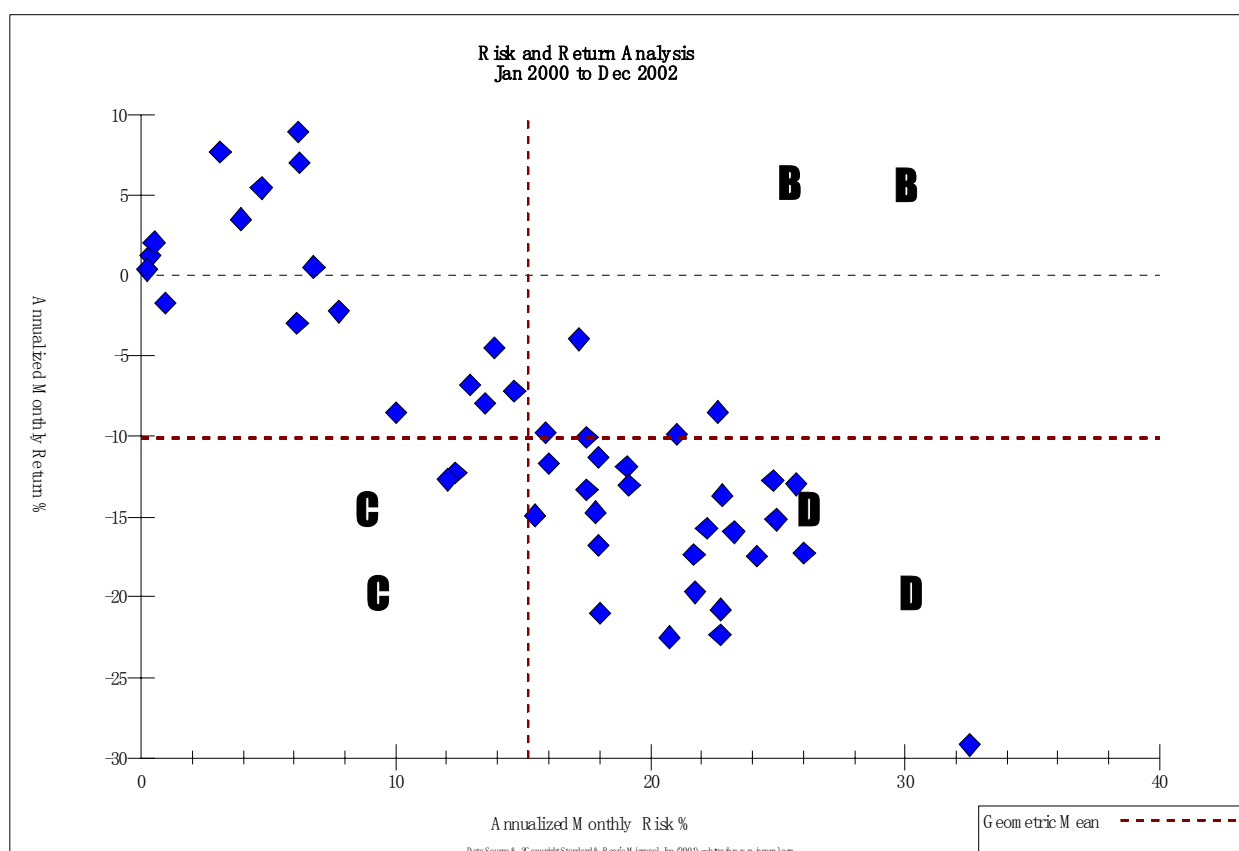
All quadrants with the exception of D are desirable depending on the employee's risk tolerance level and return requirements. Quadrant A might be seen as the most optimal choice where the fund managers have managed to produce relatively high returns while minimizing the funds' volatility.

Over a 3-year period, in the entire group of CPFIS-included unit trusts, 31.6% are in quadrant A while 46.9% of the funds are in quadrant D.

#### CPFIS-Included Unit Trusts



## CPFIS-Included ILPs



Over the past 3 years, 36.2% of the ILPs belong to quadrant A while 48.9% 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 for 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
★★★★	20
★★★	16
★★	17
★	19

#### CPFIS-Included ILPs

S&P Fund Stars	Number of ILPs
★★★★★	1
★★★★	5
★★★	6
★★	5
★	6

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

#### CPFIS Included Unit Trusts

CPFIS - Included Unit Trusts	S&P Fund Stars	General Sector	CPFIS Risk Classification
<b>5 Stars</b>			
Aberdeen Pacific Equity	★★★★★	Equity Asia Pacific ex Japan	Higher Risk
Aberdeen Singapore Equity	★★★★★	Equity Singapore	Higher Risk
ACMIF Global Growth Trends A	★★★★★	Equity Global	Higher Risk
DBS Horizon Asia Ex-Japan Equity	★★★★★	Equity Asia Pacific ex Japan	Higher Risk
UOB United Millennium 1	★★★★★	Asset Alloc Global Neutral	Medium to High Risk
<b>4 Stars</b>			
AIG Int Fds Asian Equities	★★★★	Equity Asia Pacific ex Japan	Higher Risk
CitiSelect Asia Tilt Balanced	★★★★	Asset Alloc Global Neutral	Medium to High Risk
CitiSelect Asia Tilt Growth	★★★★	Asset Alloc Global Dynamic	Medium to High Risk
DBS Horizon Japanese Equity	★★★★	Equity Japan	Higher Risk
DBS Shenton Dynamic Bond	★★★★	Fixed Income Global	Low to Medium Risk
Deutsche Asia Premier Trust	★★★★	Equity Asia Pacific ex Japan	Higher Risk
First State Asia-Pacific Growth	★★★★	Equity Asia Pacific ex Japan	Higher Risk
Franklin Templeton F-China	★★★★	Equity China (Greater)	Higher Risk
Franklin Templeton F-Glb Eqty	★★★★	Equity Global	Higher Risk
Franklin Templeton F-Global Bal	★★★★	Asset Alloc Global Neutral	Medium to High Risk
HSBC Pan European Growth	★★★★	Equity Europe	Higher Risk
OCBC Savers Global Bond	★★★★	Fixed Income Global	Low to Medium Risk
Schroder Asian Growth Fund	★★★★	Equity Asia Pacific ex Japan	Higher Risk
Schroder European Equity	★★★★	Equity Europe	Higher Risk
Schroder Japanese Equity	★★★★	Equity Japan	Higher Risk
Schroder Singapore Trust	★★★★	Equity Singapore	Higher Risk
UOB United Asia	★★★★	Equity Asia Pacific ex Japan	Higher Risk
UOB United Global Technology	★★★★	Sector - TMT Global	Higher Risk
UOB United Growth	★★★★	Equity Singapore	Higher Risk
UOB United International Growth	★★★★	Equity Global	Higher Risk
<b>3 Stars</b>			
Aberdeen Japan Equity	★★★	Equity Japan	Higher Risk
CitiSelect Global Growth	★★★	Asset Alloc Global Dynamic	Medium to High Risk
DBS Horizon Global Equity	★★★	Equity Global	Higher Risk
DBS Shenton Thrift	★★★	Equity Singapore	Higher Risk
First State Regional China	★★★	Equity China (Greater)	Higher Risk
Franklin Templeton F-Asian Eq	★★★	Equity Asia Pacific ex Japan	Higher Risk
Henderson Global Technology	★★★	Sector - TMT Global	Higher Risk
Indocam Asia Vision	★★★	Equity Asia Pacific ex Japan	Higher Risk
Keppel South East Asia	★★★	Equity Asia Pacific ex Japan	Higher Risk
OCBC Savers Global Trust	★★★	Equity Global	Higher Risk
Rothschilds Five Arrows Asian Enterprise	★★★	Equity Asia Pacific ex Japan	Higher Risk
Rothschilds Five Arrows Worldwide Enterprise	★★★	Equity Global	Higher Risk
UOB Unifund	★★★	Equity Malaysia & Singapore	Higher Risk
UOB United European Equity	★★★	Equity Europe	Higher Risk
UOB United Millennium 2	★★★	Asset Alloc Global Neutral	Medium to High Risk
UOB United Millennium 3	★★★	Asset Alloc Global Dynamic	Higher Risk

CPFIS - Included Unit Trusts	S&P Fund Stars	General Sector	CPFIS Risk Classification
<b>2 Stars</b>			
AIG Int Fds Multi Currency Bond	☆☆	Fixed Income Global	Low to Medium Risk
Citi Global Bond	☆☆	Fixed Income Global	Low to Medium Risk
CitiSelect Asia Tilt Enhanced Gr	☆☆	Asset Alloc Global Dynamic	Higher Risk
DBS Shenton Asia Pacific	☆☆	Equity Asia Pacific ex Japan	Higher Risk
Deutsche Premier Select	☆☆	Asset Alloc Global Neutral	Medium to High Risk
Dresdner Intl Prov Global Tech	☆☆	Sector - TMT Global	Higher Risk
First State Global 100 Growth	☆☆	Equity Global	Higher Risk
First State Global Balanced	☆☆	Asset Alloc Global Neutral	Medium to High Risk
First State Singapore Growth	☆☆	Equity Malaysia & Singapore	Higher Risk
HSBC Global Growth	☆☆	Equity Global	Higher Risk
OCBC Savers Singapore Trust	☆☆	Equity Singapore	Higher Risk
Rothschilds Five Arrows SEA Special Sits	☆☆	Equity Asia Pacific ex Japan	Higher Risk
Schroder Global Enterprise	☆☆	Equity Global	Higher Risk
UOB Optimix Asian Equity	☆☆	Equity Asia Pacific ex Japan	Higher Risk
UOB Optimix Worlwide Bond	☆☆	Fixed Income Global	Low to Medium Risk
UOB United Greater China	☆☆	Equity China (Greater)	Higher Risk
UOB United Japan Growth	☆☆	Equity Japan	Higher Risk
<b>1 Star</b>			
Aberdeen Global Technology	☆	Sector - TMT Global	Higher Risk
ABN AMRO Star Europe Equity	☆	Equity Europe	Higher Risk
DBS Horizon Global Bond SGD	☆	Fixed Income Global	Low to Medium Risk
DBS Horizon Singapore Equity	☆	Equity Singapore	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 Asia Tiger	☆	Equity Asia Pacific ex Japan	Higher Risk
Dresdner Intl Prov European Eqty	☆	Equity Europe	Higher Risk
Dresdner Intl Prov Glb Balanced	☆	Asset Alloc Global Neutral	Medium to High Risk
HSBC Asian Growth	☆	Equity Asia Pacific ex Japan	Higher Risk
HSBC Global Fixed Income	☆	Fixed Income Global	Low to Medium Risk
HSBC Japanese Growth	☆	Equity Japan	Higher Risk
OCBC Asia Pacific	☆	Equity Asia Pacific ex Japan	Higher Risk
OCBC Savers China Growth	☆	Equity China (Greater)	Higher Risk
Rothschilds Five Arrows Global Bond Trust	☆	Fixed Income Global	Low to Medium Risk
Schroder Balanced Growth	☆	Asset Alloc Global Neutral	Medium to High Risk
UOB Optimix Singapore Equity	☆	Equity Singapore	Higher Risk
UOB Optimix Worlwide Eqty	☆	Equity Global	Higher Risk

## CPFIS Included ILPs

CPFIS - Included ILPs	S&P Fund Stars	General Sector	CPFIS Risk Classification
<b>5 Stars</b>			
Asia Life Asia Premier Growth	★★★★★	Equity Asia Pacific ex Japan	Higher Risk
<b>4 Stars</b>			
Aviva MM Capital Growth	★★★★	Equity Asia Pacific ex Japan	Higher Risk
John Hancock Pacific Finance	★★★★	Equity Asia Pacific ex Japan	Higher Risk
Prulink Global Equity	★★★★	Equity Global	Higher Risk
Prulink Singapore Cash	★★★★	Money Market SGD	Lower Risk
UOB Lifelink Global	★★★★	Equity Global	Higher Risk
<b>3 Stars</b>			
AIA Regional Equity	★★★	Equity Asia Pacific ex Japan	Higher Risk
AXA Life-Dynamic Growth	★★★	Equity Global	Higher Risk
Greatlink Cash	★★★	Money Market SGD	Lower Risk
Manulife Gldn Asia Growth	★★★	Equity Asia Pacific ex Japan	Higher Risk
NTUC Global Equity	★★★	Equity Global	Higher Risk
Prulink Asian Eqty	★★★	Equity Asia Pacific ex Japan	Higher Risk
<b>2 Stars</b>			
AXA Life-Value Growth	★★	Equity Asia Pacific ex Japan	Higher Risk
John Hancock Singapore Cash	★★	Money Market SGD	Lower Risk
Keppel Global Leaders	★★	Equity Global	Higher Risk
OAC Premier Link Equity	★★	Equity Asia Pacific ex Japan	Higher Risk
UOB Lifelink Asia	★★	Equity Asia Pacific ex Japan	Higher Risk
<b>1 Star</b>			
Greatlink Enhancer	★	Equity Asia Pacific ex Japan	Higher Risk
John Hancock Worldwide Eqty	★	Equity Global	Higher Risk
Keppel Asia Growth	★	Equity Asia Pacific ex Japan	Higher Risk
Keppel Takaful Global Fund	★	Equity Global	Higher Risk
NTUC Takaful	★	Equity Asia Pacific ex Japan	Higher Risk
OAC Premier Link Money	★	Money Market SGD	Lower Risk

For details on the methodology of the CPF Risk 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	31/12/1999 31/12/2002 Annual Avg	31/12/1999 31/12/2002 Ann Volatility	CPFIS Risk Classification	CPFIS General Focus	CPFIS Narrow Focus	S&P Sector Name
<b>Quadrant A</b>						
Aberdeen Malaysia Equity	2.45	15.85	Higher Risk	Narrowly Focused	Country-Others	Equity Malaysia
Aberdeen Pacific Equity	-3.67	16.97	Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
AIG Int Fds Multi Currency Bond	5.01	6.30	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
Citi Global Bond	4.93	3.50	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
CitiBond Singapore A	4.93	1.94	Lower Risk	Broadly Diversified	N/A	Fixed Income SGD
CitiSelect Asia Tilt Balanced	-5.25	10.55	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
CitiSelect Asia Tilt Growth	-10.69	14.62	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Dynamic
CitiSelect Global Growth	-9.95	12.98	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Dynamic
DBS Shenton Dynamic Bond	6.12	5.38	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
Deutsche Lion Bond	4.56	1.37	Lower Risk	Broadly Diversified	N/A	Fixed Income SGD
Deutsche Premier Select	-8.55	10.69	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
Dresdner Intl Prov Gbl Balanced	-12.32	9.21	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
Rothschilds Five Arrows Global Bond Trust	3.63	5.86	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
Franklin Templeton F-Gbl Sm Co	-4.66	16.23	Higher Risk	Narrowly Focused	Small Cap	Smlr Companies Global
Franklin Templeton F-Gbl Eqty	-8.41	15.63	Higher Risk	Broadly Diversified	N/A	Equity Global
Franklin Templeton F-Global Bal	-1.25	11.77	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
Henderson European Property Sec	7.02	13.52	Higher Risk	Narrowly Focused	Sector-Others	Sector - Prop Shrs Europe
DBS Horizon Global Bond SGD	2.90	2.96	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
DBS Horizon Singapore Fixed Inc Enh	4.12	1.80	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income SGD
HSBC Global Fixed Income	3.64	6.13	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
HSBC Pan European Growth	-12.73	18.04	Higher Risk	Narrowly Focused	Europe	Equity Europe
Keppel Singapore Balanced	-6.29	15.32	Medium to High Risk	Narrowly Focused	Country	Asset Alloc Singapore Neutral
OCBC Savers Global Bond	6.10	2.98	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
Schroder Balanced Growth	-10.85	9.74	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
Schroder Global Smaller Co's	-3.78	18.15	Higher Risk	Narrowly Focused	Small Cap	Smlr Companies Global
UOB Optimix SGD Fund	2.96	0.93	Lower Risk	Broadly Diversified	N/A	Short Term Bd SGD
UOB Optimix Worlwide Bond	4.52	4.39	Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
UOB United International Growth	-15.13	18.44	Higher Risk	Broadly Diversified	N/A	Equity Global
UOB United Millennium 1	-1.70	7.88	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
UOB United Millennium 2	-7.24	10.23	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
UOB United Millennium 3	-12.19	14.87	Higher Risk	Broadly Diversified	N/A	Asset Alloc Global Dynamic
<b>Quadrant B</b>						
Aberdeen Indonesia Equity	-7.72	33.48	Higher Risk	Narrowly Focused	Country-Others	Equity Indonesia
Aberdeen Singapore Equity	-6.35	21.70	Higher Risk	Narrowly Focused	Singapore	Equity Singapore
ACMIF Global Growth Trends A	-10.63	19.28	Higher Risk	Broadly Diversified	N/A	Equity Global
First State Regional China	-11.54	24.11	Higher Risk	Narrowly Focused	Greater China	Equity China (Greater)
Franklin Templeton F-Asian Eq	-12.78	21.43	Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Franklin Templeton F-China	-5.53	18.79	Higher Risk	Narrowly Focused	Greater China	Equity China (Greater)
DBS Horizon Asia Ex-Japan Equity	-11.40	21.25	Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Schroder Singapore Trust	-11.73	26.06	Higher Risk	Narrowly Focused	Singapore	Equity Singapore
UOB United Growth	-13.29	23.87	Higher Risk	Narrowly Focused	Singapore	Equity Singapore
<b>Quadrant C</b>						
Aberdeen Japan Equity	-20.49	17.86	Higher Risk	Narrowly Focused	Japan	Equity Japan
Aberdeen UK Blue Chip	-18.89	18.47	Higher Risk	Narrowly Focused	UK	Equity United Kingdom
First State Global Balanced	-13.50	16.68	Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
DBS Horizon Global Equity	-15.96	17.41	Higher Risk	Broadly Diversified	N/A	Equity Global
DBS Horizon UK Equity	-14.64	14.46	Higher Risk	Narrowly Focused	UK	Equity United Kingdom
HSBC Global Growth	-19.62	17.54	Higher Risk	Broadly Diversified	N/A	Equity Global
OCBC Savers Global Trust	-17.18	17.79	Higher Risk	Broadly Diversified	N/A	Equity Global
Schroder European Equity	-14.95	18.23	Higher Risk	Narrowly Focused	Europe	Equity Europe
Schroder Japanese Equity	-19.16	16.00	Higher Risk	Narrowly Focused	Japan	Equity Japan
Schroder Pan Asia Fund	-16.23	17.01	Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific
UOB United Asia Top 50	-18.45	18.42	Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific
UOB United Regional Growth	-19.21	17.92	Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific

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

Singapore Unit Trusts	31/12/1999	31/12/1999 CPFIS	CPFIS General Focus	CPFIS Narrow Focus	S&P Sector Name
	31/12/2002 Annual Avg	31/12/2002 CPFIS Ann Volatility Classification			
<b>Quadrant D</b>					
Aberdeen Continental Europe Eqty	-14.29	21.20 Higher Risk	Narrowly Focused	Europe	Equity Europe ex UK
Aberdeen Global Technology	-40.20	46.10 Higher Risk	Narrowly Focused	Technology	Sector - TMT Global
Aberdeen Philippine Equity	-26.64	24.54 Higher Risk	Narrowly Focused	Country-Others	Equity Philippines
ABN AMRO Star Europe Equity	-20.47	19.71 Higher Risk	Narrowly Focused	Europe	Equity Europe
AIG Int Fds American Equities	-14.50	20.27 Higher Risk	Narrowly Focused	North America	Equity USA
AIG Int Fds Asian Equities	-14.50	23.54 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
CitiSelect Asia Tilt Enhanced Gr	-15.53	18.89 Higher Risk	Broadly Diversified	N/A	Asset Alloc Global Dynamic
DBS Japan Growth	-28.80	20.43 Higher Risk	Narrowly Focused	Japan	Equity Japan
DBS Mendaki Global	-31.04	20.25 Higher Risk	Broadly Diversified	N/A	Equity Global
DBS Shenton Asia Pacific	-17.27	24.36 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
DBS Shenton Global Opportunities	-25.18	20.24 Higher Risk	Broadly Diversified	N/A	Equity Global
DBS Shenton Thrift	-14.78	25.64 Higher Risk	Narrowly Focused	Singapore	Equity Singapore
Deutsche Asia Premier Trust	-14.07	22.43 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Dresdner Asia Tiger	-18.62	25.66 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Dresdner Intl Prov European Eqty	-24.81	23.99 Higher Risk	Narrowly Focused	Europe	Equity Europe
Dresdner Intl Prov Global Tech	-36.19	35.58 Higher Risk	Narrowly Focused	Technology	Sector - TMT Global
First State Asia-Pacific Growth	-13.91	25.53 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
First State Global 100 Growth	-21.75	23.34 Higher Risk	Broadly Diversified	N/A	Equity Global
First State Singapore Growth	-17.80	25.99 Higher Risk	Narrowly Focused	Singapore	Equity Malaysia & Singapore
Rothschilds Five Arrows Asian Enterprise	-16.83	25.98 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Rothschilds Five Arrows SEA Special Sits	-16.78	22.28 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Rothschilds Five Arrows Worldwide Enterprise	-17.23	20.62 Higher Risk	Broadly Diversified	N/A	Equity Global
Franklin Templeton F-Emerg Mkts	-13.76	20.94 Higher Risk	Narrowly Focused	Emerging Markets	Equity Global Emerging Mkts
Franklin Templeton F-Korea	-19.87	38.25 Higher Risk	Narrowly Focused	Country-Others	Equity Korea
Franklin Templeton F-Thailand	-15.83	36.97 Higher Risk	Narrowly Focused	Country-Others	Equity Thailand
Henderson Global Technology	-38.34	51.47 Higher Risk	Narrowly Focused	Technology	Sector - TMT Global
DBS Horizon Japanese Equity	-21.78	18.81 Higher Risk	Narrowly Focused	Japan	Equity Japan
DBS Horizon Singapore Equity	-19.38	24.20 Higher Risk	Narrowly Focused	Singapore	Equity Singapore
DBS Horizon US Equity	-17.19	19.76 Higher Risk	Narrowly Focused	North America	Equity USA
HSBC Asian Growth	-21.32	26.17 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
HSBC Japanese Growth	-29.12	21.75 Higher Risk	Narrowly Focused	Japan	Equity Japan
HSBC North American Growth	-18.93	21.08 Higher Risk	Narrowly Focused	North America	Equity North America
Indocam Asia Vision	-16.32	23.19 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Keppel South East Asia	-15.14	21.57 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
OCBC Asia Pacific	-18.32	21.83 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
OCBC Savers China Growth	-16.04	23.11 Higher Risk	Narrowly Focused	Greater China	Equity China (Greater)
OCBC Savers Singapore Trust	-17.09	25.06 Higher Risk	Narrowly Focused	Singapore	Equity Singapore
Schroder Asian Growth Fund	-14.54	23.51 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Schroder Global Enterprise	-20.37	19.99 Higher Risk	Broadly Diversified	N/A	Equity Global
UOB Optimix Asian Equity	-16.91	23.57 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
UOB Optimix Singapore Equity	-21.09	23.18 Higher Risk	Narrowly Focused	Singapore	Equity Singapore
UOB Optimix Worlwide Eqty	-20.37	19.66 Higher Risk	Broadly Diversified	N/A	Equity Global
UOB Unifund	-14.59	20.31 Higher Risk	Narrowly Focused	Singapore	Equity Malaysia & Singapore
UOB United Asia	-13.52	24.32 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
UOB United Greater China	-14.43	24.77 Higher Risk	Narrowly Focused	Greater China	Equity China (Greater)
UOB United Japan Growth	-26.21	20.87 Higher Risk	Narrowly Focused	Japan	Equity Japan

## 2) CPFIS-Included ILPs

Singapore Insurance Linked	31/12/1999 31/12/2002 Annual Avg	31/12/1999 CPFIS 31/12/2002 Risk Ann Volatility Classification	CPFIS General Focus	CPFIS Narrow Focus	S&P Sector Name
<b>Quadrant A</b>					
AIA Regional Fixed Income	7.73	3.10 Low to Medium Risk	Broadly Diversified	N/A	Fixed Income SGD
Aviva MM Balanced Growth	-4.47	13.85 Medium to High Risk	Narrowly Focused	Asia	Asset Alloc Asia Pac ex Japan Neutral
Aviva MM Income Growth	0.54	6.77 Medium to High Risk	Narrowly Focused	Asia	Asset Alloc Asia Pac ex Japan Defensive
AXA Life-Assured Growth SGD	5.45	4.72 Low to Medium Risk	Narrowly Focused	Regional	Fixed Income Global
AXA Life-Balanced Growth	-2.93	6.12 Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Defensive
Greatlink Cash	1.25	0.36 Lower Risk	Broadly Diversified	N/A	Money Market SGD
Greatlink Global Supreme	-8.51	10.01 Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Neutral
John Hancock Singapore Cash	0.37	0.22 Lower Risk	Broadly Diversified	N/A	Money Market SGD
John Hancock Worldwide Bond	3.51	3.93 Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
Manulife Gldn Bal Growth	-6.80	12.91 Medium to High Risk	Narrowly Focused	Singapore	Asset Alloc Global Neutral
Manulife Gldn Intl Bond	8.95	6.17 Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
NTUC Trust	-7.95	13.50 Medium to High Risk	Narrowly Focused	Singapore	Asset Alloc Singapore Neutral
OAC Premier Link Balanced	N/A	N/A Medium to High Risk	Narrowly Focused	Asia	Asset Alloc Asia Pac ex Japan Neutral
OAC Premier Link Money	N/A	N/A Lower Risk	Broadly Diversified	N/A	Money Market SGD
Prulink Global Bond	7.06	6.20 Low to Medium Risk	Broadly Diversified	N/A	Fixed Income Global
Prulink Global Managed	-2.22	7.77 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>					
Asia Life Asia Premier Growth	-3.96	17.17 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Aviva MM Capital Growth	-9.88	21.05 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
John Hancock Money Growth Plan	-9.75	15.89 Medium to High Risk	Narrowly Focused	Singapore	Asset Alloc Singapore Neutral
John Hancock Pacific Finance	-8.47	22.63 Higher Risk	Narrowly Focused	Sector-Others	Equity Asia Pacific ex Japan
Prulink Singapore Managed	-10.06	17.50 Medium to High Risk	Narrowly Focused	Singapore	Asset Alloc Singapore Neutral
<b>Quadrant C</b>					
AXA Life-Capital Growth	-12.26	12.35 Medium to High Risk	Broadly Diversified	N/A	Asset Alloc Global Dynamic
NTUC Prime	-12.68	12.04 Medium to High Risk	Narrowly Focused	Asia	Asset Alloc Asia Pac ex Japan Neutral
<b>Quadrant D</b>					
AIA Growth Fd	-11.28	17.95 Medium to High Risk	Narrowly Focused	Singapore	Equity Malaysia & Singapore
AIA Regional Equity	-13.66	22.83 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
AXA Life-Dynamic Growth	-16.81	17.95 Higher Risk	Broadly Diversified	N/A	Equity Global
AXA Life-Fortress	N/A	N/A Higher Risk	Narrowly Focused	Singapore	Equity Singapore
AXA Life-Value Growth	-14.72	17.83 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Greatlink ASEAN Growth	-11.86	19.06 Higher Risk	Narrowly Focused	Asia	Equity ASEAN
Greatlink Enhancer	-17.38	21.71 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
John Hancock Pacific Harvest	-13.06	19.16 Medium to High Risk	Narrowly Focused	Asia	Asset Alloc Global Dynamic
John Hancock Worldwide Eqty	-21.01	18.03 Higher Risk	Broadly Diversified	N/A	Equity Global
Keppel Asia Growth	-19.71	21.77 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Keppel Global Communication	-29.22	32.54 Higher Risk	Narrowly Focused	Technology	Sector - TMT Global
Keppel Global Leaders	-20.77	22.76 Higher Risk	Broadly Diversified	N/A	Equity Global
Keppel Takaful Global Fund	-22.36	22.74 Higher Risk	Broadly Diversified	N/A	Equity Global
Manulife Gldn Asia Growth	-12.73	24.80 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
NTUC Enhanced	-13.29	17.51 Medium to High Risk	Narrowly Focused	Asia	Asset Alloc Asia Pac ex Japan Dynamic
NTUC Global Equity	-17.43	24.16 Higher Risk	Broadly Diversified	N/A	Equity Global
NTUC Takaful	-22.51	20.75 Higher Risk	Broadly Diversified	N/A	Equity Asia Pacific ex Japan
OAC Premier Link Equity	-17.24	26.04 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Prulink Asian Eqty	-12.98	25.71 Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
Prulink Global Equity	-11.70	16.01 Higher Risk	Broadly Diversified	N/A	Equity Global
UOB Life Asia Fund	N/A	N/A Higher Risk	Narrowly Focused	Asia	Equity Asia Pacific ex Japan
UOB Lifelink Global	-14.92	15.45 Higher Risk	Broadly Diversified	N/A	Equity Global
UOB Lifelink Growth	-15.96	23.26 Higher Risk	Narrowly Focused	Singapore	Equity Malaysia & Singapore



# APPENDIX 2

## S&P Fund Stars Methodology

---

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:

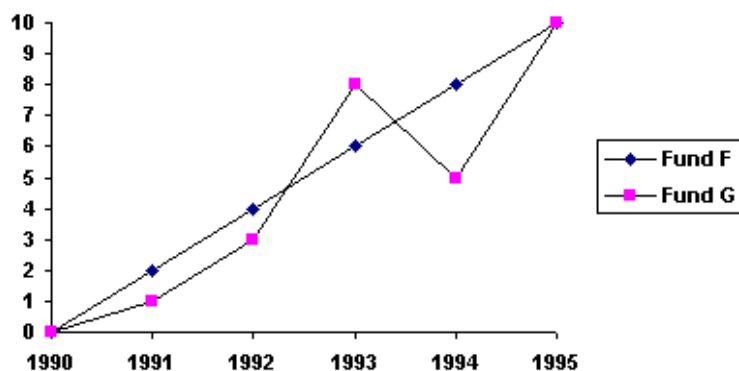
★★★★★	Top 10%	10 funds
★★★★	Top 11-30%	20 funds
★★★	Top 31-50%	20 funds
★★	Next 25%	25 funds
★	Bottom 25%	25 funds

## 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

---

### 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 December 31, 2002, the distribution of CPFIS-included investments in the 4 different risk categories is as below:

Risk Classification	Unit Trusts	ILPs
Higher Risk	135	77
Medium to High Risk	23	44
Low to Medium Risk	55	32
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

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**