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#### **EXECUTIVE SUMMARY**

During the fourth quarter of 2016, global financial markets were primarily impacted by the United States presidential election, the Federal Reserve's monetary policy stance, rising oil prices and continued economic expansion across the major economies. These factors positively influenced investor sentiments and paved the way for equity markets to rally. The Standard and Poor's (S&P) 500 index gained 3.81 per cent over the quarter while equity markets in France and Germany returned 9.71 per cent and 9.23 per cent, respectively. Meanwhile, global sovereign bond yields rose, with the 10-year US Treasury yield surpassing 2 per cent for the first time since January 2016 while the yields on German and Japanese 10-year bonds returned to positive territory during the period. In the currency market, the US dollar strengthened against the other major currencies.

On the economic side, recent data pointed towards increased global output in the final quarter of 2016. In the **United States** (US), the preliminary estimate of real Gross Domestic Product (GDP) showed an annualized growth rate of 1.9 per cent compared with an upwardly revised 3.5 per cent in the previous quarter. Despite this slower outturn, other indicators suggested that the economy continued to exhibit a fairly robust performance.

In the **Euro Area**, business activity across the manufacturing and services sectors accelerated in the three months to December 2016. Market analysts have indicated that manufacturers and service sector companies have benefitted from the relatively weaker currency which assisted in boosting exports.

The **United Kingdom** (UK) economy continued to maintain momentum as the preliminary reading of real GDP for the fourth quarter indicated that the economy grew by 0.6 per cent, the same pace of growth recorded in the previous quarter. This expansion was driven by the solid performance of the services sector and a rebound in manufacturing activity.

The latest available data for **Japan** revealed that the economy emerged from its deflationary spiral as the year-on-year inflation rate measured 0.5 per cent in

November 2016, following six consecutive months of declines. However, much of this increase was on account of higher fresh food prices.

With respect to the HSF investment portfolio, the relatively higher exposure to fixed income securities did not bode well for the Fund as the portfolio lost 0.46 per cent in the quarter ended December 2016. Nonetheless, the investment portfolio outperformed its SAA benchmark which lost 0.98 per cent. The fixed income portion of the Fund posted a weighted return of negative 1.42 per cent but this was partially offset by the positive contribution from the equity portfolios which added 0.96 per cent. As at December 31, 2016, the net asset value of the Fund stood at US\$5,555.0 million, down from US\$5,584.2 million at the end of September 2016.

Table 1
Contribution to Quarterly Return
For the period Oct 2016 - Dec 2016
/per cent/

	SAA Weights	Portfolio Weights as at 31-Dec-2016	Weighted Return HSF	Weighted Return Benchmark
Composite Portfolio	100.00	100.00	-0.46	-0.98
US Core Domestic Fixed Income	40.00	40.82	-1.18	-1.19
US Core Domestic Equity	17.50	20.05	0.99	0.70
Non US Core International Equity	17.50	17.23	-0.03	-0.21
US Short Duration Fixed Income	25.00	21.90	-0.24	-0.27

NB: Differences in totals are due to rounding.

Table 2
Comparative Contributions to Quarterly Returns
For the Three Months to Dec 2015, Sep 2016 and Dec 2016
/per cent/

		ths to Dec- 2016	З Мо	nths to Sep- 2016	З Мо	nths to Dec- 2015
eren gertenen auch er eine gerten	HSF	Benchmark	HSF	Benchmark	HSF	Benchmark
Composite Portfolio	-0.46	-0.98	2.45	2.12	1.68	1.67
US Core Domestic Fixed Income	-1.18	-1.19	0.32	0.18	-0.19	-0.22
US Core Domestic Equity	0.99	0.70	0.91	0.79	1.11	1.19
Non US Core International Equity	-0.03	-0.21	1.21	1.19	0.92	0.89
US Short Duration Fixed Income	-0.24	-0.27	0.00	-0.05	-0.14	-0.17

# SECTION 1 - INTERNATIONAL ECONOMIC ENVIRONMENT

#### **United States**

For the fourth quarter of 2016, preliminary estimate of real GDP revealed that the US economy expanded at an annualised rate of 1.9 per cent compared with an upwardly revised 3.5 per cent in the previous quarter. This slower pace of growth reflected the reversal of transitory factors which boosted exports in the September quarter, in addition to a deceleration in personal consumption expenditure. For 2016 as a whole, the US economy expanded by 1.6 per cent which represents the lowest growth rate since 2011.

In other news, the Institute of Supply Management Manufacturing Purchasing Managers' Index (PMI) indicated that the US manufacturing sector grew at a faster pace in the fourth quarter of 2016, with the index averaging 53.3, compared to an average reading of 51.2 in the prior quarter. Increased activity in this sector reflected strong growth in the new orders, production and employment subcomponents of the index. Meanwhile, the housing market also showed some improvement in the fourth quarter as housing starts rose 6.2 per cent compared with a contraction of 1.3 per cent during the third quarter. On the other hand, the labour market indicators were mixed as the monthly increase in total nonfarm payroll employment averaged 165,000 in the fourth quarter, down from 212,000 in the previous quarter while the unemployment rate moved favourably, falling to 4.7 per cent in December 2016 from 4.9 per cent three months earlier.

Consumer prices continued to trend upwards during the fourth quarter of 2016, mainly as a result of higher energy prices. The Consumer Price Index (CPI) increased by 2.1 per cent in the twelve months to December 2016, up from 1.5 per cent in the previous three months. Given the general improvement in economic conditions, the Federal Open Market Committee (FOMC) at its December meeting decided to increase the target range of the Federal Funds rate from 0.25-0.50 per cent to 0.50-0.75 per cent. The Committee further indicated that it has projected three increases in its benchmark interest rate in 2017, in the amount of 0.25 per cent on each occasion. This is an upward revision from its prior expectation for two increases over the year.

#### Euro Area

During the fourth quarter of 2016, latest data signalled that economic activity in the Euro Area increased at a faster pace when compared with growth of 0.3 per cent in the previous quarter. According to Markit's Composite PMI, business activity across the manufacturing and services sectors accelerated in the three months to December 2016 as the index averaged 53.9, up from 52.9 one quarter earlier. Market analysts have indicated that manufacturers and service sector companies have benefitted from the relatively weaker currency which assisted in boosting exports of goods and contributed to increased demand for services exports such as tourism and travel to Euro Area countries.

In the labour market, the unemployment rate continued its steady decline, falling to 9.8 per cent in November 2016 from 9.9 per cent in September, marking the lowest jobless rate since July 2009. Among the member countries, the lowest unemployment rates were observed in the Czech Republic (3.7 per cent) and Germany (4.1 per cent), while the highest unemployment rates were recorded in Greece (23.1 per cent) and Spain (19.2 per cent).

On the price front, headline inflation accelerated by 1.1 per cent over the year to December 2016 compared with an increase of 0.4 per cent in September, mainly on account of rising energy prices. However, the core inflation rate showed a more gradual increase, measuring 0.9 per cent in December, up from 0.8 per cent in September. Nonetheless, the Governing Council of the European Central Bank maintained its accommodative policy stance in support of the economy as it maintained the benchmark refinancing rate, the deposit rate and the lending rate at 0 per cent, -0.4 per cent and 0.25 per cent, respectively at its December meeting. The Governing Council also decided to extend its asset purchases programme until December 2017 and to reduce its monthly bond purchases to €60 billion from €80 billion, with effect from April 2017.

### United Kingdom

In the aftermath of the Brexit vote, the UK economy continued to maintain momentum as the preliminary reading of real GDP for the fourth quarter of 2016 indicated that the economy grew by 0.6 per cent, the same pace of growth recorded

in the previous quarter. This expansion was driven by the solid performance of the services sector and a rebound in manufacturing activity. Other indicators were also supportive of continued economic growth. On a year-on-year basis, retail sales increased on average by 5.7 per cent during the quarter compared with growth of 5.5 per cent in the third quarter. At the same time, the UK Markit PMIs showed that activity picked up in the Manufacturing, Services and Construction sectors. The Composite PMI measured 56.7 in December compared with a reading of 53.9 in September, registering its highest reading in seventeen months.

With regards to consumer prices, inflationary pressures began to intensify over the quarter as the inflation rate reached 1.6 per cent in December, up from 1 per cent three months earlier. This acceleration reflected increased cost of commodities, transport, housing and utilities. Despite the uptick in inflation, the Bank of England's Monetary Policy Committee (MPC) voted unanimously to maintain the Bank Rate at 0.25 per cent at its December 2016 meeting and left its asset purchase programme unchanged. This accommodative stance was taken to spur economic activity and inflation. The Committee added that it expects the inflation rate to reach its 2 per cent target within six months.

### Japan

Recent economic indicators suggest that the Japanese economy is likely to expand in the fourth quarter of 2016 at a faster pace when compared with an annualised growth of 1.3 per cent in the prior quarter. This outturn may be attributed to the sharp depreciation of the Yen which boosted exports and to a lesser extent, domestic demand. The manufacturing sector, which started the quarter on a strong footing, maintained its solid momentum throughout the period. The Nikkei Manufacturing PMI reached 52.4 in December, up from 50.4 three months earlier, marking its highest reading since December 2015.

During the quarter, the Japanese economy emerged from its deflationary spiral as the latest year-on-year inflation rate measured 0.5 per cent in November 2016, following six consecutive months of declines between April and September. Much of this increase was on account of higher fresh food prices. However, the core inflation rate, which excludes the impact of food prices, remained in negative territory in

November 2016 for the ninth month in succession. Meanwhile, the Bank of Japan (BOJ) left its benchmark interest rate unchanged over the quarter and unveiled measures geared at keeping the 10-year yield around zero per cent.

# SECTION 2 - CAPITAL AND MONEY MARKET REVIEW

The US presidential election and subsequent victory of Mr. Trump dominated financial markets in the final quarter of 2016. President Trump's proposals to reduce regulatory restrictions, cut taxes and increase infrastructure spending fuelled investors' optimism about the prospects for the US economy. Accordingly, equity markets rallied while developed market sovereign bonds sold off over the quarter. One of the major highlights in the global fixed income market was the return to positive yields offered on German and Japanese 10-year bonds.

Volatility in the US financial market, as measured by the Chicago Board Options Exchange Volatility Index (VIX), increased slightly over the quarter. The VIX averaged 14.10 points compared with 13.23 points in the previous quarter. During the three months to December 2016, the index reached a high of 22.51 points on November 4, a few days before the presidential election, as uncertainty surrounding the outcome had heightened. Meanwhile, the Euro Stoxx 50 Index (VSTOXX), which gauges market volatility in Europe, declined in the fourth quarter as the index averaged 19.43 points, down from 20.73 points in the previous quarter.

VIX Index

45
40
35
30
25
20
15
10
5
0
313112015 613012015 913012015 313112016 613012016 913012016

12013112015 613012015 913012015 313112016 613012016 913012016

Figure 1
Equity Market Volatility in the US
/points/

Source: Bloomberg

#### Fixed Income

US Treasury yields rose over the fourth quarter of 2016 amidst increased inflationary expectations and less accommodative monetary policy. Investors appeared somewhat optimistic that President Trump's proposed fiscal stimulus would spur economic growth and inflation. These sentiments pushed rates higher, causing the 10-year yield to surpass 2 per cent for the first time since January 2016. Moreover, the FOMC's decision to raise interest rates by 25 basis points on December 14, 2016, resulted in further increases in yields as those on US 10-year bonds reached 2.60 per cent before closing the quarter at 2.44 per cent. Although the announcement was largely anticipated, the post-meeting press conference suggested more rate hikes in 2017 than what was initially forecasted by market participants. Over the period, the yield curve steepened with the spread between the 2-year and 10-year segment of the curve widening by 42.4 basis points to 125.5 basis points.

3.50 3.00 2.50 Per cent (%) 2.00 1.50 1.00 0.50 0.00 -0.50 3 Month 6 Month 1 Year 2 Year 5 Year 10 Year 30 Year September 30, 2015 -0.02 0.07 0.31 0.63 1.36 2.04 2.85 December 31, 2015 0.16 0.47 0.6 1.05 1.76 2.27 3.02 March 31, 2016 0.20 0.38 0.58 0.72 1.20 1.77 2.61 June 30, 2016 0.26 0.35 0.43 0.58 1.00 1.47 2.28 September 30, 2016 0.27 0.43 0.59 0.76 1.15 1.59 2.32 December 31, 2016 0.50 0.61 0.81 1.19 1.93 2.44 3.07

Figure 2
US Treasury Yield Curve
/per cent/

Source: Bloomberg

The broader US fixed income market, as measured by the Barclays Capital US Aggregate Bond Index, lost 2.98 per cent during the fourth quarter compared with

a gain of 0.46 per cent in the previous quarter. The worst performing sectors were US Treasuries and the Commercial Mortgage Backed Securities (CMBS) sector which lost 3.84 per cent and 3.03 per cent, respectively. On the other hand, Asset Backed Securities (ABS) and Mortgage Backed Securities (MBS) were the best performing sectors, posting smaller losses of 0.70 per cent and 1.97 per cent, respectively.

10.00 8.00 6.00 4.00 2.00 0.00 -2.00 -4.00 -6.00 OTR QTR QTR OTR QTR ended ended ended ended ended FY 15/16 Dec-16 Sep-16 Jun-16 Mar-16 Dec-15 Barclays U.S. Aggregate -2.980.46 2.21 3.03 -0.575.19 U.S. Treasuries -3.84 -0.282.10 3.20 -0.94 4.09 U.S. Agencies -2.10 0.25 1.73 2.43 -0.75 3.68 U.S. Corporate -2.831.41 3.57 3.97 -0.588.56 U.S. MBS -1.97 0.60 1.11 1.98 -0.10 3.61 G-7 Global Bonds (Hedged) -2.53 -0.30 2.84 3.93 0.11 6.69 ■ CMBS Index -3.03 0.59 2.24 3.61 -1.245.22 ABS Index -0.700.20 1.17 1.36 -0.572.16

Figure 3
Returns on Fixed Income Indices
/per cent/

Source: Barclays Capital

In the global developed fixed income market, sovereign bond yields from G-7 countries rose between 13 basis points and 85 basis points over the fourth quarter. The most notable movement was the directional change in yields on German and Japanese 10-year bonds which stood at 0.20 per cent and 0.04 per cent,

respectively at the end of December 2016, up from -0.12 per cent and -0.09 per cent, respectively three months earlier. However, the magnitude of the change in yields on these bonds lagged those experienced by the other G-7 countries during the quarter.

Table 3
G-7 Generic Government 10 Year Yields
/per cent/

Country		Generic Government 10 Year Yields		
	Dec 2016	Sep 2016	points)	
US	2.444	1.594	84.99	
UK	1.235	0.745	49.00	
France	0.681	0.183	49.80	
Germany	0.204	(0.122)	32.60	
Italy	1.812	1.186	62.60	
Canada	1.718	0.993	72.50	
Japan	0.041	(0.094)	13.50	

Source: Bloomberg

# **Equity Markets**

Equities in the developed market advanced following Donald Trump's victory in the US presidential election. The S&P 500 gained 3.81 per cent over the quarter with the financial sector being the best performing sector. The President's proposed deregulation policies bode well for the sector's performance. The energy sector also recorded large gains as OPEC and non-OPEC members reached an agreement to reduce oil production by 1.8 million barrels per day in 2017. This milestone deal was also positive for UK stocks.

In the Euro Area, the DAX 30 and CAC 40 advanced 9.23 per cent and 9.71 per cent, respectively over the period. Euro Area equities were supported, in part, by the ECB's decision to extend its asset purchases programme to December 2017

from March 2017. Meanwhile, Japanese equities also rallied over the quarter with the Nikkei 225 gaining 16.34 per cent as export-driven companies in the index benefitted from a weaker yen.

20.00 15.00 10.00 Returns 5.00 0.00 -5.00 -10.00 QTR ended QTR ended QTR ended QTR ended QTR ended FY 15/16 FY 14/15 Dec-16 Sep-16 Jun-16 Mar-16 Dec-15 Russell 3000 4.20 4.39 2.62 0.95 6.26 14.93 -0.49 Dow Jones 8.65 2.78 2.06 2.18 7.70 15.44 -2.10■ S&P 500 3.81 3.85 2.45 1.34 7.03 15.39 -0.62 FTSE 100 - UK 4.34 7.07 6.52 0.08 3.72 18.39 -5.09 CAC 40 - France 9.71 5.20 -0.69-5.124.47 3.56 4.10 DAX 30 - Germany 9.23 8.58 -2.86 -7.24 11.21 8.80 1.96 Nikkei 225 - Japan 16.34 6.44 -6.92-11.199.62 -3.559.42 MSCI EAFE -0.71 6.48 -1.28-2.89 4.75 6.93 -8.26

Figure 4
Total Returns on Equity Indices
/Per cent/

Source: Bloomberg

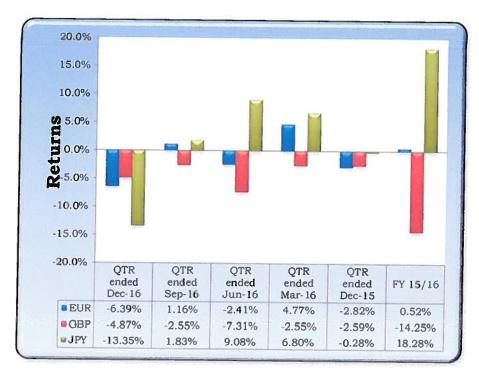
#### **Currency Markets**

The United States dollar, as measured by the DXY index rose 7.07 per cent over the fourth quarter. In general, the quarter was characterised by USD strength as the US FOMC increased its benchmark policy rate by 25 basis points as widely anticipated in December. Additionally, the FOMC's expectations for US economic growth in 2017 coupled with its projected path of interest rate increases during the upcoming year further contributed to USD strength.

The euro depreciated vis-à-vis the US dollar during the period, losing 6.39 per cent in the three months to December while the pound continued to lose value over the quarter, depreciating 4.87 per cent. The Japanese yen also depreciated

significantly over the three month period, falling 13.35 per cent on continued lower levels of risk aversion which did not bode well for the safe haven currency.

Figure 5
Foreign Exchange Returns for Major Currencies vis-à-vis the US Dollar



Source: Bloomberg

# **SECTION 3 - PORTFOLIO PERFORMANCE**

# Strategic Asset Allocation

During the period October 2016 to December 2016, the asset classes of the Fund deviated from their Strategic Asset Allocation (SAA) but their weights were all within the permitted (+/- 5 per cent) range. The approved SAA for the HSF investment portfolio is as follows:

US Short Duration Fixed Income Mandate	25.0%
US Core Domestic Fixed Income Mandate	40.0%
US Core Domestic Equity Mandate	17.5%
Non US Core International Equity Mandate	17.5%
	US Core Domestic Fixed Income Mandate  US Core Domestic Equity Mandate

By the end of the quarter, the asset class with the largest overweight was the US Core Equity mandate while the US Short Duration Fixed Income mandate had the largest underweight position.

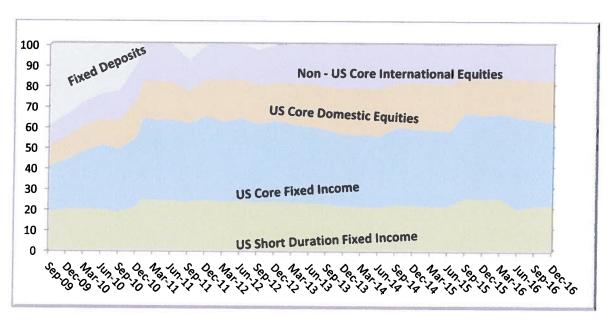
The total net asset value of the Fund as at the end of December 2016 was US\$5,555.0 million, compared with US\$5,584.2 million at the end of the previous quarter. Of this total, the investment portfolio was valued at US\$5,554.2 million, while the remaining portion (US\$0.8 million) was held in cash to meet the day-to-day expenses that arise from the management of the Fund. The Fund's target asset allocation and the portfolio weightings for the period March 31, 2016 to December 31, 2016 are shown in Table 4, overleaf.

Table 4
Portfolio Composition relative to the Approved SAA
/per cent/

	Asset Class		Mar-16	Jun-16	Sep-16	Dec-16
		Target Weight SAA	Actual % of Fund			
	US Short Duration Fixed Income	25.00	25.57	20.36	22.03	21.90
ights	US Core Domestic Fixed Income	40.00	41.16	44.69	41.80	40.82
io We	US Core Domestic Equity	17.50	17.17	18.54	18.98	20.05
Portfolio Weights	Non-US Core International Equity	17.50	16.10	16.40	17.19	17.23

Totals may not sum to 100 due to rounding.

Figure 6
Asset Composition of the HSF Portfolio
/per cent/



## Performance of the Investment Portfolio

During the fourth quarter of 2016, the HSF investment portfolio generated a negative return of 0.46 per cent, outperforming its SAA benchmark<sup>1</sup> which lost 0.98 per cent. The relatively better performance of the investment portfolio was attributed to positive allocation and security selection effects. The HSF portfolio's quarterly return was primarily impacted by the negative return of 1.42 per cent of the fixed income portion of the Fund which was only partially offset by the equity mandates returns which contributed approximately 0.96 per cent.

The **US Short Duration Fixed Income** portfolio lost 1.08 per cent during the fourth quarter of 2016, outperforming its benchmark, the Bank of America Merrill Lynch US Treasury 1-5 year index, by 1 basis point. This outperformance was attributed to the interest rate duration strategies employed during the quarter and the portfolio's exposure to US agency bonds and agency commercial MBS securities. The net asset value of this mandate as at December 31, 2016 was **US\$1,216.2 million,** compared with US\$1,229.8 million at the end of the previous quarter.

Income securities, lost 2.81 per cent during the fourth quarter of 2016, outperforming its benchmark, the Barclays Capital US Aggregate Bond index, by 17 basis points. This outperformance was due to both security selection and sector allocations during the quarter. Allocations to the asset backed securities and mortgage backed securities added to performance over the period. Additionally, security selection in Mortgage pass-through securities and Inflation Protected securities also helped performance. The net asset value of this mandate as at December 31, 2016 stood at US\$2,267.3 million compared with US\$2,333.7 million as at September 30, 2016.

<sup>&</sup>lt;sup>1</sup> The SAA benchmark is a blended benchmark which comprises, Bank of America/Merrill Lynch US Treasury 1-5 Years Index (25%), Barclays US Aggregate Bond Index (40%), Russell 3000 ex Energy Index (17.5%), and MSCI EAFE ex Energy Index (17.5%).

The **Non-US** International Equities mandate lost 0.17 per cent for the fourth quarter of 2016, compared to a decrease of 1.29 per cent for its benchmark, the MSCI EAFE ex Energy index. The outperformance of the portfolio relative to its benchmark was due to positive stock selection within countries and sectors. Stock selection was especially positive in the Materials and Financials sectors and in UK and Europe. The net asset value of the Non-US Core International Equity mandate as at December 31, 2016 decreased to **US\$956.8 million**, from US\$959.6 million at the end of September 2016.

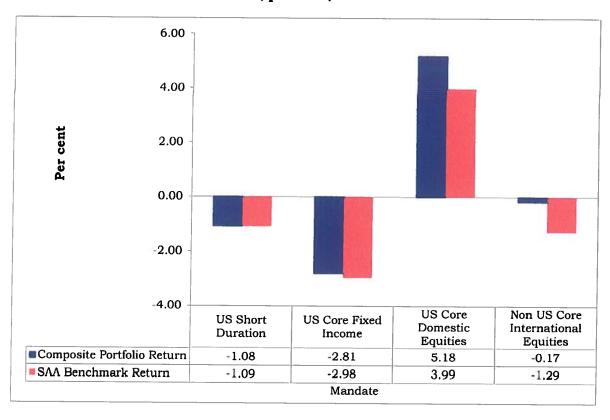
The **US Core Domestic Equities** mandate generated a return of 5.18 per cent, compared with a benchmark return of 3.99 per cent. During the quarter stock selection was the main contributor to relative performance. Particular holdings within the health care sector gained in value, causing the mandate to outperform its benchmark. The net asset value of this mandate, as at December 31, 2016, was **US\$1,113.9 million**, compared with US\$1,059.9 million at the end of September 2016.

Table 5
Contribution to Quarterly Return
For the period Oct 2016 – Dec 2016
/per cent/

	SAA Weights	Portfolio Weights as at 31-Dec-2016	Weighted Return HSF	Weighted Return Benchmark
Composite Portfolio	100.00	100.00	-0.46	-0.98
US Core Domestic Fixed Income	40.00	40.82	-1.18	-1.19
US Core Domestic Equity	17.50	20.05	0.99	0.70
Non US Core International Equity	17.50	17.23	-0.03	-0.21
US Short Duration Fixed Income	25.00	21.90	-0.24	-0.27

NB: Differences in totals are due to rounding.

Figure 7
Absolute Returns by Asset Class
For the period Oct 2016 – Dec 2016
/per cent/



# SECTION 4 - COMPLIANCE AND PORTFOLIO RISKS

# Compliance

In December 2016, an investment manager breached the investment guidelines, specifically as it pertains to the underperformance threshold. The Bank has commenced a formal review of all the asset managers, with a view to mitigate underperformance of the Fund relative to the SAA benchmark.

Also in December 2016, one of the managers in the US Core Fixed Income mandate exceeded the credit concentration limit as a result of the reduction in the total amount outstanding for the security. This security was subsequently sold and the manager is back within compliance with the investment guidelines.

#### Portfolio Risks

The main risks for the HSF portfolio are Credit, Concentration, Interest Rate, and Currency risks. The following paragraphs give a description of how these risks are mitigated.

### Credit Risk

Within the **money market portion** of the Fund, Credit Risk is minimized by the strict adherence to the following standards: (i) all counterparties must have a minimum credit rating of either A-1 from the Standard and Poor's rating agency or P-1 from Moody's; and (ii) a maximum exposure limit for counterparties of no more than 5.0 per cent of the market value of the portfolio.

For **fixed income instruments**, Credit Risk is mitigated by the use of credit concentration limits as well as minimum credit quality ratings. Bonds must have an implied investment grade rating as defined by Standard and Poor's, Moody's or Fitch. Should the required ratings on an existing fixed income security fall below the minimum standards, the security must be sold within an agreed upon timeframe. Table 6 below shows the Average Credit Quality of the US Short Duration and US Core Fixed Income Portfolios as at December 31, 2016.

Table 6
Average Credit Rating

Mandate	Portfolio	Benchmark
US Short Duration	AA+	AA+
US Core Fixed Income	AA	AA+

#### **Concentration Risk**

Concentration or Diversification Risk is minimised by investing across various asset types. The portfolio is currently invested across four asset groupings as follows - US Short Duration Fixed Income, US Core Domestic Fixed Income, US Core Domestic Equity and Non-US Core International Equity. The Asset classes in which the Fund invests react differently under a given market condition. As such, it is likely that when one asset class has strong returns, another may have lower returns. The Fund's investments are also diversified across a number of assets with the aim of securing a positive return over a range of market conditions and lowering the total risk of the portfolio. In addition, Concentration Risk is minimized within asset groups. For the **equity portfolios**, this Risk is managed by imposing a maximum percentage holding of 3.0 per cent of any security's outstanding shares, as well as a maximum sector deviation relative to the benchmark of 5.0 per cent.

#### **Interest Rate Risk**

Interest Rate Risk is managed using a weighted average effective duration limit on the respective portfolios, with an allowable range of one (1) year longer or shorter than the weighted average duration of the respective benchmark. Table 7 shows the weighted average duration for the US Short Duration and US Core Domestic Fixed Income portfolios as at December 31, 2016.

Table 7
Weighted Average Duration
/Years/

11	cars/	
Mandate	Portfolio	Benchmark
US Short Duration	2.72	2.65
US Core Domestic Fixed Income	5.68	5.89

### Currency Risk

Currency Risk is managed by containing and managing the exposure to non-US dollar instruments. For the Fixed Income and US Core Domestic Equity mandates, no more than 10 per cent of the market value of the portfolio can be invested in securities, which are denominated in currencies other than the US Dollar. The Non-US Core International Equity Portfolio is comprised primarily of non-US dollar denominated securities, and the Fund accepts the currency risk inherent in the relevant benchmark. For this mandate, currency hedging is permitted up to 15 per cent of the market value of the portfolio using the US dollar as the base currency. At the end of December 2016, the currency exposure for this portfolio was 98 per cent of its market value. During the quarter, all the portfolios were within their respective limits.

# Appendix I HSF Portfolio Historical Performance

-	່ວ	Current Returns			Financial YTD		Annualised	Annualised Return Since Incention	a chance
End	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess	Portfolio	Donohmost	ception
	%	%	saq	%	70		2010110	Denchmark	Excess
	FY 20	2010			2	S. C.	/0	%	sdq
December	96.0	0.89	6.65	0.96	0.89	6.65	3.72	3.78	6.16
March	1.61	1.68	-6.20	2.59	2.58	0.49	3.95	4 03	7.76
June	-1.83	-1.89	6.05	0.71	0.64	69.9	3.07	3.12	0/./0
September	5.33	5.08	24.73	6.07	5.75	31.93	4.37	4.35	20.10
	FY 20	2011							2.00
December	2.29	2.21	8.15	2.29	2.21	8.15	4.70	4.65	4 13
March	1.62	1.54	7.24	3.94	3.79	15.68	4.81	4.76	5.70
June	1.88	1.81	89.9	5.89	5.67	22.91	4.98	4 91	200
September	-4.82	-4.28	-53.66	0.79	1.14	-34.89	3.57	3.63	3.7
	FY 20	2012							(3.0)
December	2.74	3.03	-28.52	2.74	3.03	-28.52	3.97	4.08	-12.00
March	5.04	4.46	57.50	7.92	7.63	29.29	4.78	4 78	800
June	-0.90	-0.60	-30.42	6.95	6.98	-3.72	4.37	4 43	0.00
September	3.53	2.98	55.03	10.73	10.18	55.02	4.68	4 65	0.15
	FY 20	2013					3	8	4.07
December	1.49	1.45	4.11	1.49	1.45	4.11	4 88	4 83	27.1
March	3.29	2.90	39.19	4.82	4.38	44.01	5.23	5 12	5 1.70
June	-0.30	-0.69	39.05	4.51	3.66	84.64	4.97	4 80	17.06
September	3.95	3.47	47.35	8.63	7.26	137.06	5 40	5 16	25.72
	FY 20	2014					5	0.10	24.01
December	3.95	2.66	129.38	3.95	2.66	129.38	5.80	5.37	10.67
March	1.46	1.30	16.28	5.47	4.00	147.73	5.80	5.37	42.07
June	2.56	2.30	25.90	8.17	6.38	178.44	5.96	5.51	20.05
September	-0.48	-0.73	25.31	7.65	5.60	204.51	5.69	5 22	27.67
	FY 20	2015						0.52	47.09
December	2.25	1.63	62.27	2.25	1.63	62.27	5.81	5.26	27.76
March	2.29	2.25	3.95	4.60	3.92	67.71	5.92	5.39	53.34
June	-0.02	-0.51	49.43	4.58	3.39	119.07	5.74	5.16	57.93

	S	Current Returns			Financial YTD		Annualised	Annualized Return Since Tracetion	
End	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess	Portfolio	Donoh-most	ceptuon
	%	%	hne	/0	70		2000	Dencumark	EXCESS
	!	1	oho	0/	%	pps	%	%	saq
	FY 2015	015							
September	-2.02	-2.19	16.83	2.47	1.13	134 06	18.2	7 73	0
	FY 2016	016				2	1000	4.73	28.12
December	1.68	1.67	0.22	1 68	1 67	0			
Mosch	000			3	1.07	0.22	5.30	4.79	56.52
Matcii	0.80	1.26	-46.14	2.48	2.95	-46.70	5.30	4 80	40.64
June	0.80	1.11	-30.92	3.30	4.09	-78 90	20.2	2 70	12.01
September	2.45	2.12	32.85	5.83	6 29	45.70	5.27	4.79	44.83
	FY 2017	017				7.0	0.07	4.89	47.33
December	-0.46	-0.98	51.92	-0.46	-0.98	51 92	217	7 66	
					27:5	01.72	0.17	4.00	51.64

# Notes:

E 6

Differences in totals are due to rounding.

In August 2009, International Equities and Fixed Income Securities were added to the HSF portfolio. The performance benchmark for the HSF portfolio became a blended benchmark which comprise, Bank of America/Merrill Lynch US Treasury 1-5 Years Index, US One-month LIBID Index, Barclays US Aggregate, Russell 3000 ex Energy, and MSCI EAFE ex Energy.

In January 2011, the HSF Portfolio achieved its Strategic Asset Allocation where the portfolio was invested in four assets classes. US Short Duration Fixed Income (25), US Core Fixed Income (40), US Equity With effect from the quarter ended December 2012, the Annualised Returns Since Inception were computed using a geometric average and not the previously used arithmetic average. For comparative purposes, prior period annualized returns since inception shown above were computing using a geometric average.

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# Appendix II Heritage and Stabilisation Fund Portfolio Valuation (USD)

	POIL	iono valuation (c	ועפע	
Valuation Date	Net Asset Value	Total Comprehensive Income	Accumulated Surplus & Unrealized Capital Gains/Losses	Contributions / (Withdrawals)
Annual Portfolio	Valuation			
September 30,2007	1,766,200,701	41,966,361	41,966,361	321,706,043
September 30,2008	2,888,421,556	68,412,770	110,379,131	1,054,174,457
September 30,2009	2,964,686,478	76,248,691	186,755,766	-
September 30,2010	3,621,984,041	177,645,460	364,361,226	477,344,263
September 30,2011	4,084,016,158	9,715,841	374,074,067	451,400,519
September 30,2012	4,712,376,278	420,693,705	794,770,772	207,550,846
September 30,2013	5,154,027,747	399,007,950	1,193,778,722	42,414,251
September 30,2014	5,533,425,248	379,167,024	1,572,945,746	-
September 30,2015	5,655,143,565	120,639,605	1,693,585,351	-
September 30,2016	5,584,246,290	305,452,096	1,999,037,447	(375,050,860)
Quarterly Portfolio	o Valuation			
June 30, 2012	4,378,930,036	(44,520,884)	642,769,982	26,241,964
September 30, 2012	4,712,376,278	152,000,791	794,770,772	181,308,882
December 31, 2012	4,780,065,524	66,787,005	861,557,777	-
March 31, 2013	4,933,344,741	220,441,931	1,015,212,703	-
June 30, 2013	4,914,375,234	(18,801,609)	996,411,094	-
September 30, 2013	5,154,027,747	197,367,628	1,193,778,722	42,414,251
December 31, 2013	5,354,721,875	199,949,013	1,393,727,735	-
March 31, 2014	5,429,643,570	74,268,941	1,467,996,676	-
June 30, 2014	5,563,339,006	134,504,162	1,602,500,838	-
September 30, 2014	5,533,425,248	(29,555,092)	1,572,945,746	-
December 31, 2014	5,653,895,156	120,509,077	1,693,454,823	-
March 31, 2015	5,779,420,631	125,471,133	1,818,925,956	-
June 30, 2015	5,774,951,169	(4,765,278)	1,814,160,678	-
September 30, 2015	5,655,143,565	(120,575,327)	1,693,585,351	-
December 31, 2015	5,744,963,957	90,833,573	1,784,418,924	-
March 31, 2016	5,787,343,363	42,134,260	1,826,553,184	-
T 00 0016				J

42,838,704

129,645,559

(29,605,256)

(375,050,860)

1,869,391,888

1,999,037,447

1,969,432,191

June 30, 2016

September 30, 2016

December 31, 2016

5,454,568,405

5,584,246,290

5,555,039,859

# Appendix III Summary Characteristics of Composite Benchmarks Fixed Income Benchmarks

Key Characteristics	Barclays US Aggregate Index	Merrill Lynch 1-5 Index		
Total Holdings	10,069			
Coupon (%)	3.08	1.90		
Duration (Years)	5.89	2.65 2.75 1.40		
Average Life (Years)	8.19			
Yield to Maturity (%)	2.61			
Option Adjusted Spread (bps)	43	O AA+		
Average Rating (S&P)	AA+			
Minimum Rating (S&P)	BBB-			

# **Equity Benchmarks**

Key Characteristics	Russell 3000 (ex- Energy)	892 8.28		
Total Holdings	2,823			
Earnings Per Share (EPS Growth 3- 5y fwd)	10.4			
Price Earnings (P/E fwd)	17.3			
Price / Book (P/B)	3.5	1.70		
Weighted Average Market Capitalization* (Bn)	\$113.00	\$49.84		

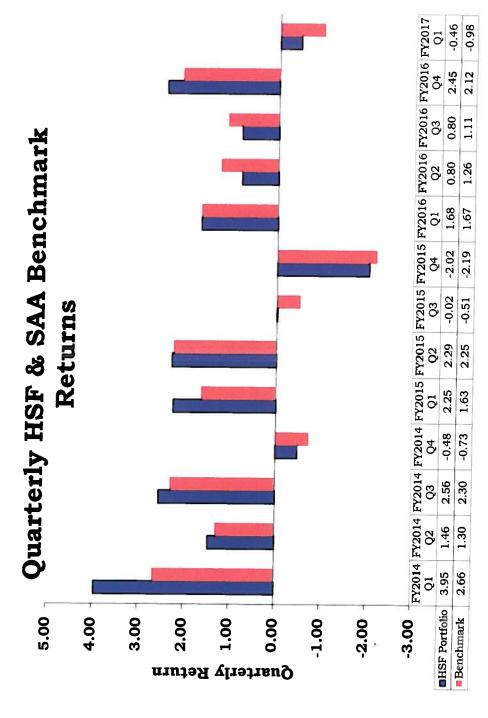
<sup>\*</sup>Market capitalization is a measurement of the size of a company (share price x the number of outstanding shares). The weighted average market capitalization of a stock market index represents the average size of the firms comprising the index where each is weighted according to its market capitalization.

# Appendix IV Summary of the Fund's Net Asset Value by Mandate /US\$ Million/

	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16
Total Fund Value	5,745	5,787	5,454	5,584	5,555
Total Value of Equity	1,963	1,925	1,905	2,019	2,071
US Core Domestic Equity	1,000	994	1,011	1,060	1,114
Non-US Core International Equity	963	931	894	959	957
Total Value of Fixed Income	3,782	3,862	3,547	3,563	3,484
US Short Duration Fixed Income	1,458	1,480	1,110	1,230	1,216
US Core Domestic Fixed Income	2,324	2,382	2,437	2,333	2,267
Total Value of Cash or Cash Equivalents	0	0	2	1	1

NB: Differences in totals are due to rounding.

**HSF Portfolio Quarterly Returns** Appendix V /per cent/



■HSF Portfolio