

HERITAGE AND STABILISATION FUND

QUARTERLY INVESTMENT REPORT

OCTOBER TO DECEMBER, 2018

TABLE OF CONTENTS

	Page
Executive Summary	1
Section 1: International Economic Environment ¹	3
Section 2: Capital and Money Market Review	4
Section 3: Portfolio Performance	9
Section 4: Compliance and Portfolio Risks	13
Appendix I: HSF Portfolio Historical Performance	16
Appendix II: Portfolio Valuation	18
Appendix III: Summary Characteristics of Composite Benchmarks	20
Appendix IV: Summary of the Fund's Net Asset Value by Mandate	21
Appendix V: HSF Portfolio Quarterly Returns	22

¹ This section includes economic developments to January 23, 2019.

EXECUTIVE SUMMARY

- Volatility moved sharply higher in the financial markets amidst slowing economic activity and reduced growth prospects among the major developed markets. This exacerbated concerns around the deleterious effects of the ongoing trade dispute between the United States and China and increased investors' fears.
- While labour market conditions improved across the major developed economies, uncertainties stemming from trade tensions and heightened political risks hindered exports and dampened business investment.
- Equity markets posted significant losses over the quarter as investors sought traditional safe haven assets. Meanwhile, sovereign fixed income securities benefitted from the high level of risk aversion with yields broadly decreasing over the period.
- On a relative basis, the fixed income portfolios underperformed when compared to their respective benchmarks, as the movement in US Treasury yields was unexpected against the backdrop of the Fed's rate hiking cycle. However, the absolute performance of the fixed income mandates positively contributed to returns, thereby partially offsetting the equity losses.
- The Heritage and Stabilisation Fund (HSF), which has exposure to developed market equities, lost 4.69 per cent in the fourth quarter of 2018, compared with a loss of 3.54 per cent for its Strategic Asset Allocation (SAA) benchmark.
- The challenging investment climate resulted in all mandates underperforming their respective benchmarks over the quarter. Furthermore, the underperformance of the HSF was exacerbated on account of the overweight allocation to equities relative to the SAA, which arose from strong returns over the prior financial year.
- The total net asset value of the HSF as at the end of December 2018 fell to US\$5,683.2 million, from US\$5,965.8 million at the end of the previous quarter. Of this total, the investment portfolio was valued at US\$5,681.75 million, while the remaining portion (US\$1.47 million) was held in cash to meet the day-to-day expenses that arise from the management of the Fund.

Table 1
Absolute Quarterly Returns
For the period October – December 2018
/per cent/

	Absolute Return HSF	Absolute Return Benchmark
Composite Portfolio	-4.69	-3.54
US Short Duration Fixed Income	1.67	1.72
US Core Domestic Fixed Income	1.23	1.64
US Core Domestic Equity	-13.84	-13.60
Non-US Core International Equity	-13.36	-12.21

Table 2
Contributions to Quarterly Returns
For the period October - December 2018
/per cent/

	3 Months Weighted Return as at 31-Dec-2018	
	HSF	Benchmark
Composite Portfolio	-4.69	-3.54
US Short Duration Fixed Income	0.38	0.43
US Core Domestic Fixed Income	0.48	0.66
US Core Domestic Equity	-3.01	-2.42
Non-US Core International Equity	-2.54	-2.19

NB: Differences in totals are due to rounding.

SECTION 1 – INTERNATIONAL ECONOMIC ENVIRONMENT

Global growth slowed in the fourth quarter of 2018 against the backdrop of renewed trade tensions between the United States (US) and China and heightened political risk stemming from both the US and Europe. In the US, momentum moderated amid sluggish business spending, a weakening housing market and a widening trade deficit. However, the labour market remained robust and rising wage pressures helped to support consumer consumption. Average hourly earnings rose to 3.3 per cent year-on-year in December from 2.8 per cent in September, while the unemployment rate moved modestly higher to 3.9 per cent in December from a multi-decade low of 3.7 per cent.

Meanwhile, in Europe, economic activity was subdued as a result of the uncertainty over Brexit. While the United Kingdom's (UK) economy remained in expansionary territory, growth in several of the Eurozone countries stalled. Gross Domestic Product (GDP) contracted in Germany and Italy during the third quarter of 2018, and there were indications that the slowdown continued into the end of the year. Elsewhere, in Asia, China's economy lost momentum in the three months to December, bringing its overall GDP for 2018 to 6.6 per cent, its slowest expansion in twenty eight years. The ongoing trade dispute between the United States (US) and China also negatively impacted Japan's output. Japanese exports to the US and China weakened over the quarter and inflationary pressures eased significantly.

Against this backdrop, with the exception of the US Federal Reserve (Fed), most major central banks remained accommodative and kept monetary policy unchanged over the period. As widely anticipated, the Fed increased its federal funds rate by 25 basis points to the range 2.25 per cent to 2.50 per cent at its December meeting. However, the Fed lowered its 2019 economic projections for inflation and GDP. Although the European Central Bank (ECB) maintained its key policy rates at current levels, the central bank ended net purchases under its asset-bond buying program in December 2018.

SECTION 2 – CAPITAL AND MONEY MARKET REVIEW

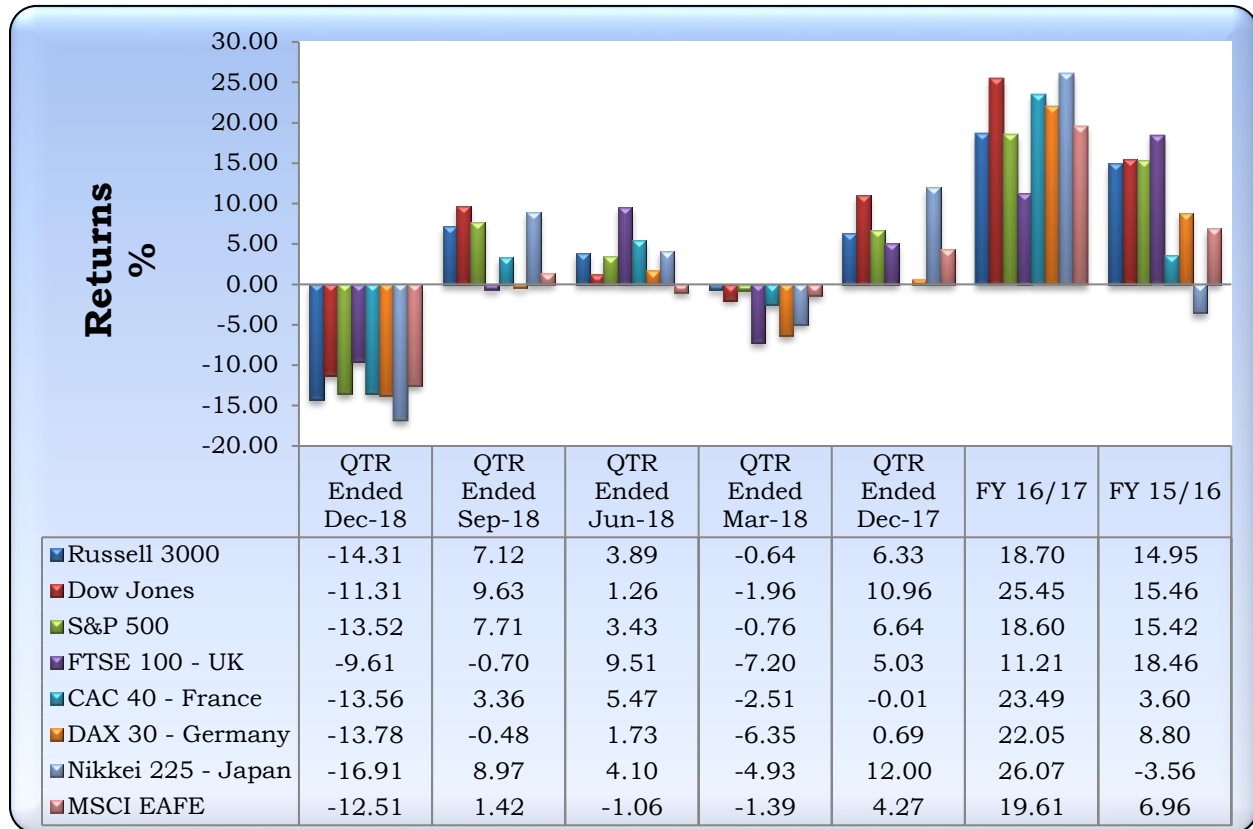
Over the quarter, global equities declined sharply amid increasing anxiety around deteriorating US-China trade relations, the Fed's rate hiking cycle and heightened geopolitical risk. Furthermore, the global slowdown in economic activity fuelled concerns around the timing of the next recession and exacerbated late-cycle fears. Energy markets were also negatively impacted by the overarching risk aversion in the market. Oil prices, as measured by West Texas Intermediate crude, collapsed in excess of 40 per cent during the period to close at \$45.41 per barrel.

Volatility moved significantly higher during the fourth quarter of 2018. In the US, market volatility as measured by the Chicago Board Options Exchange Volatility Index (VIX), averaged 21.27 points in the fourth quarter compared with 12.91 points in the previous quarter. Similarly, the European measure of investor anxiety, the Euro Stoxx 50 Volatility Index (VSTOXX), increased to an average of 19.28 points in the three months to December, from an average of 14.23 points over the third quarter.

Global equities incurred significant losses during the period. The US Standard and Poor's (S&P) 500 index declined 13.52 per cent in the fourth quarter, with losses accelerating near the end of December as many analysts reduced expectations for corporate earnings in 2019. Meanwhile, in Asia, a stronger yen coupled with slowing growth in the region resulted in the Nikkei 225 falling 16.91 per cent over the period. European equities also performed negatively over the three months to December. The UK's FTSE 100 and Germany's Dax 30 fell by 9.61 per cent and 13.78 per cent, respectively.

Figure 1

Total Returns on Equity Indices
/Per cent/

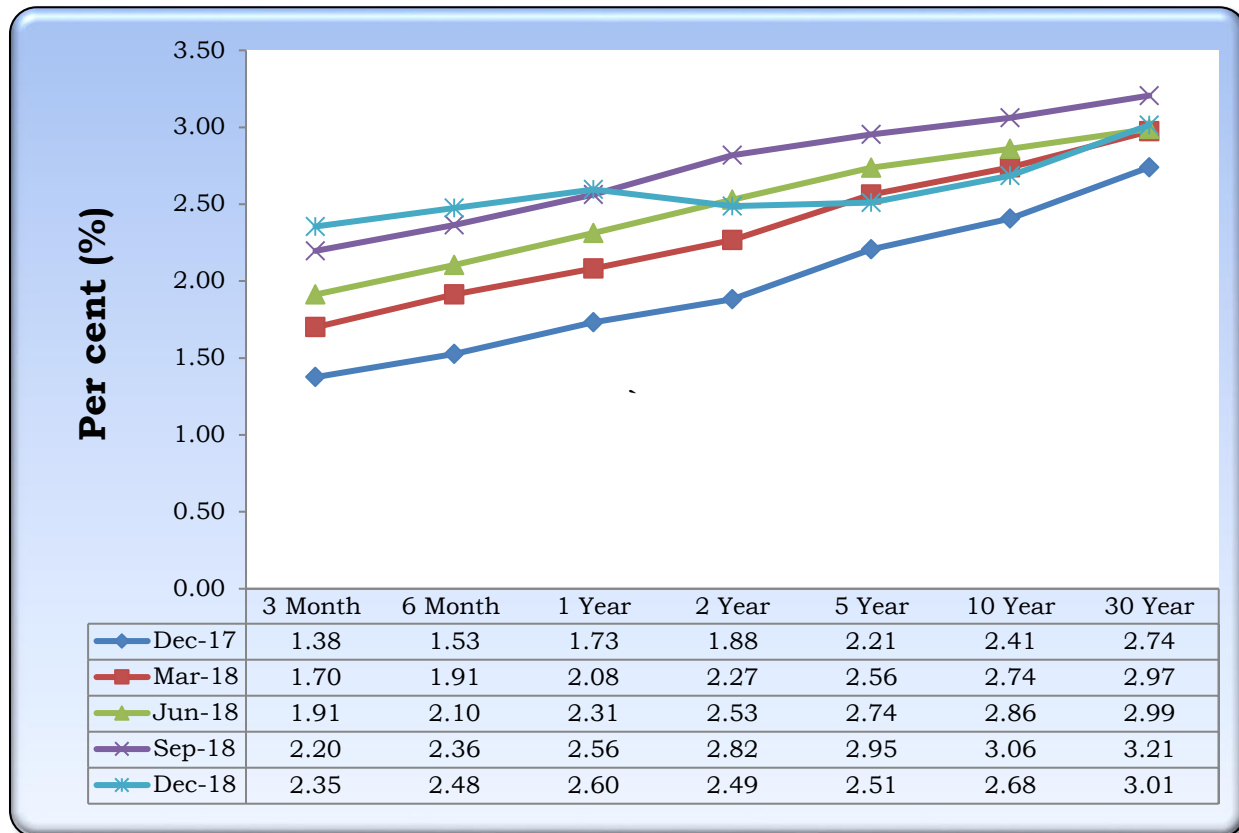


Source: Bloomberg

In the US fixed income market, treasury yields were mixed over the quarter. Longer-dated yields declined as demand for traditional safe haven assets increased following the broad risk aversion in the market. The 10-year yield fell 38 basis points to 2.68 per cent at the end of December 2018. However, rates rose on the shorter-end of the curve between the 3-month to 12-month tenors. During the period, the US Treasury curve partially inverted between the 1-5 year portion of the curve and prompted concerns that the shape of the yield curve could be foreshadowing a potential economic recession in the US.

Figure 2

US Treasury Curve /Per Cent/

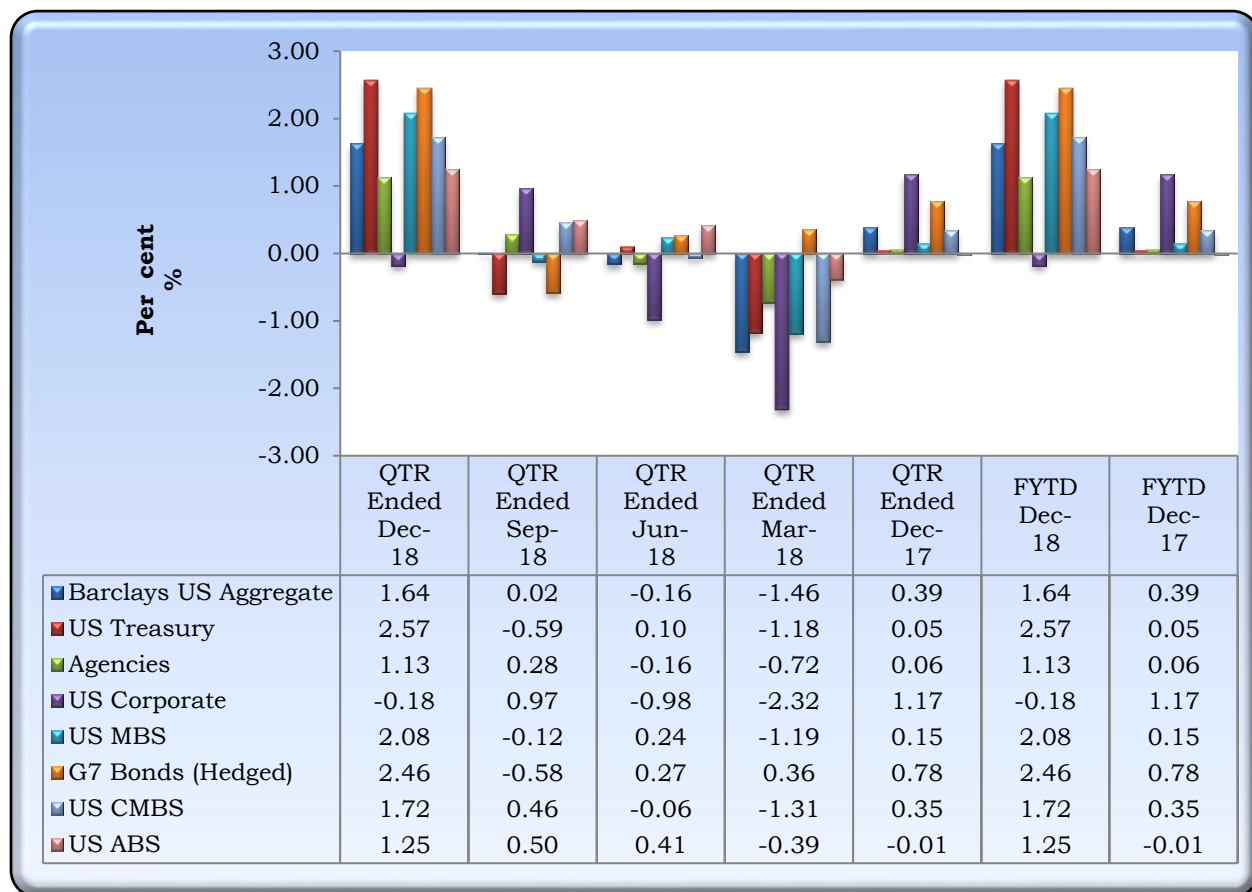


Source: Bloomberg

The broader US fixed income market, as represented by the Bloomberg Barclays US Aggregate Bond Index, earned 1.64 per cent in the fourth quarter of 2018. Relatively lower risk sovereign bonds outperformed the credit sectors over the period. The US Treasury and the G7 Bond sectors of the index gained 2.57 per cent and 2.46 per cent respectively. However, the US Corporate sector lost 0.18 per cent following a widening of credit spreads over the period.

Figure 3

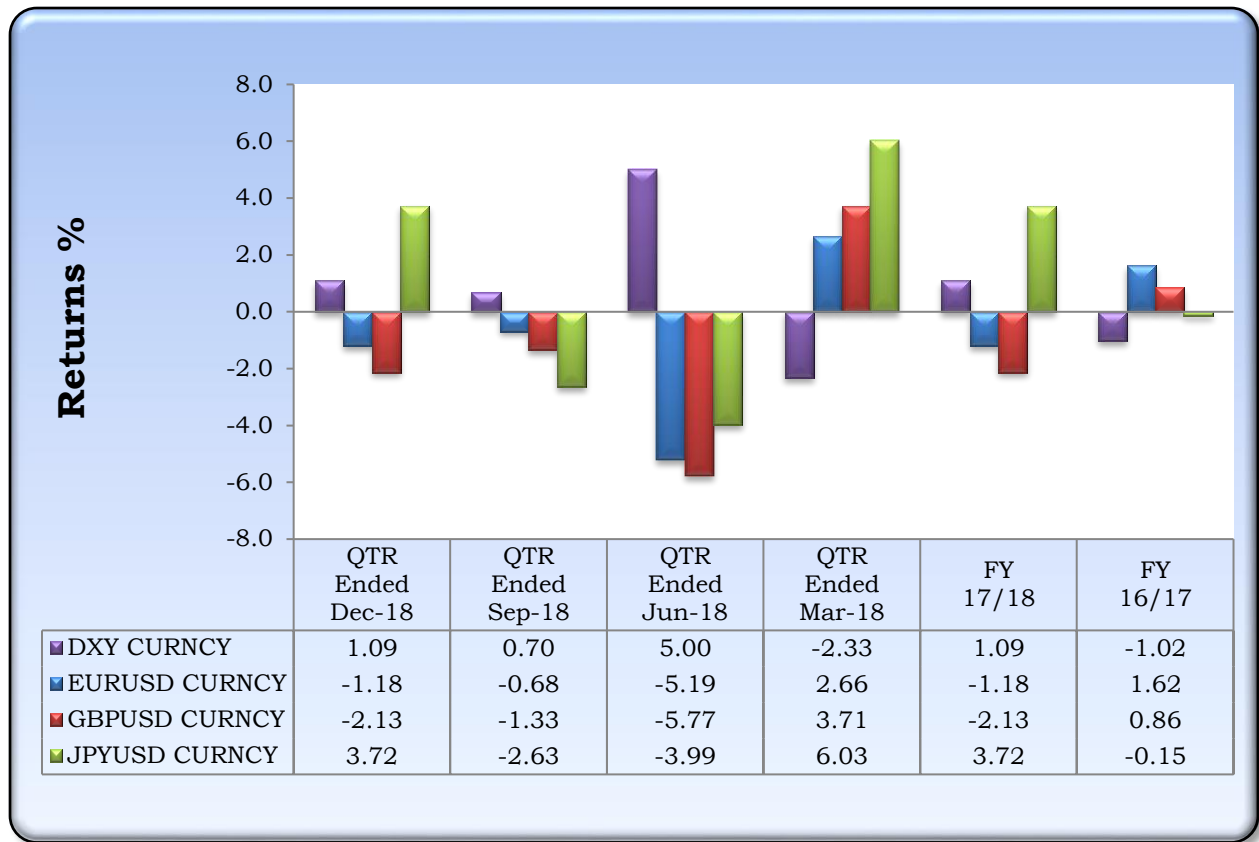
Returns on Fixed Income Indices /Per Cent/



Source: Bloomberg

In currency markets, the Japanese Yen appreciated 3.72 per cent and the US dollar gained 1.09 per cent as measured by the Dollar Spot Index (DXY), which gauges the strength of the US dollar against a basket of key currencies. Both currencies benefitted from an increase in investor demand stemming from the negative risk sentiment in the market. Meanwhile, the Euro and Pound depreciated 1.18 per cent and 2.13 per cent against the US dollar. The Pound weakened significantly following the postponement of the Brexit deal vote in parliament, while the series of protests in France provided an additional headwind to the Euro during the period.

Figure 4
Foreign Exchange Returns for Major Currencies
vis-à-vis the US Dollar
/Per Cent/



Source: Bloomberg

SECTION 3 – PORTFOLIO PERFORMANCE

Strategic Asset Allocation

During the period October to December 2018, the asset classes of the Fund deviated from their Strategic Asset Allocation (SAA) but their weights all remained within the permitted (+/- 5 per cent) range. The approved SAA for the HSF investment portfolio is as follows:

i.	<i>US Short Duration Fixed Income Mandate</i>	<i>25.0%</i>
ii.	<i>US Core Domestic Fixed Income Mandate</i>	<i>40.0%</i>
iii.	<i>US Core Domestic Equity Mandate</i>	<i>17.5%</i>
iv.	<i>Non US Core International Equity Mandate</i>	<i>17.5%</i>

At the end of December 2018, the US Core Domestic Equity mandate continued to carry an overweight position, while the exposure to all other mandates had a corresponding underweight allocation. At the asset class level, the US Core Domestic Equity mandate had the largest overweight of 2.01 per cent while the US Short Duration Fixed Income mandate had the largest underweight position amounting to 1.23 per cent.

The total net asset value of the Fund as at the end of December 2018 was US\$5,683.2 million, compared with US\$5,965.8 million at the end of the previous quarter. Of this total, the investment portfolio was valued at US\$5,681.8 million, while the remaining portion 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 as at December 31, 2018 are shown in Table 3 below.

Table 3
Portfolio Composition relative to the Approved SAA
/per cent/

	<i>Asset Class</i>	<i>Mar-18</i>	<i>Jun-18</i>	<i>Sep-18</i>	<i>Dec-18</i>
		<i>Target Weight SAA</i>	<i>Actual % of Fund</i>	<i>Actual % of Fund</i>	<i>Actual % of Fund</i>
<i>Portfolio Weights</i>	US Short Duration Fixed Income	25.00	22.65	22.64	22.27
	US Core Domestic Fixed Income	40.00	37.89	37.81	37.21
	US Core Domestic Equity	17.50	19.84	20.43	21.57
	Non-US Core International Equity	17.50	19.62	19.12	18.95

Totals may not sum to 100 due to rounding.

Performance of the Investment Portfolio

During the fourth quarter of 2018, the HSF declined 4.69 per cent compared with a loss of 3.54 per cent for its SAA benchmark². The main driver of the 115 basis points underperformance was the overweight allocation to the US Core Domestic Equity mandate compared to the SAA. Furthermore, active management detracted from returns with the external managers' strategies negatively contributing to performance during the quarter. On an absolute basis, the fixed income mandates benefitted the portfolio and helped to partially offset the losses in the equity asset class.

The **US Core Domestic Equity** mandate declined significantly during the fourth quarter of 2018, falling 13.84 per cent. It underperformed its benchmark, the Russell 3000 ex Energy index, by 24 basis points. The Fund's investments in stocks in the financial services, materials and consumer discretionary sectors negatively impacted

² The SAA benchmark is a blended benchmark which comprises, Bank of America/Merrill Lynch US Treasury 1-5 Years Index (25%), Bloomberg Barclays US Aggregate Bond Index (40%), Russell 3000 ex Energy Index (17.5%), and MSCI EAFE ex Energy Index (17.5%).

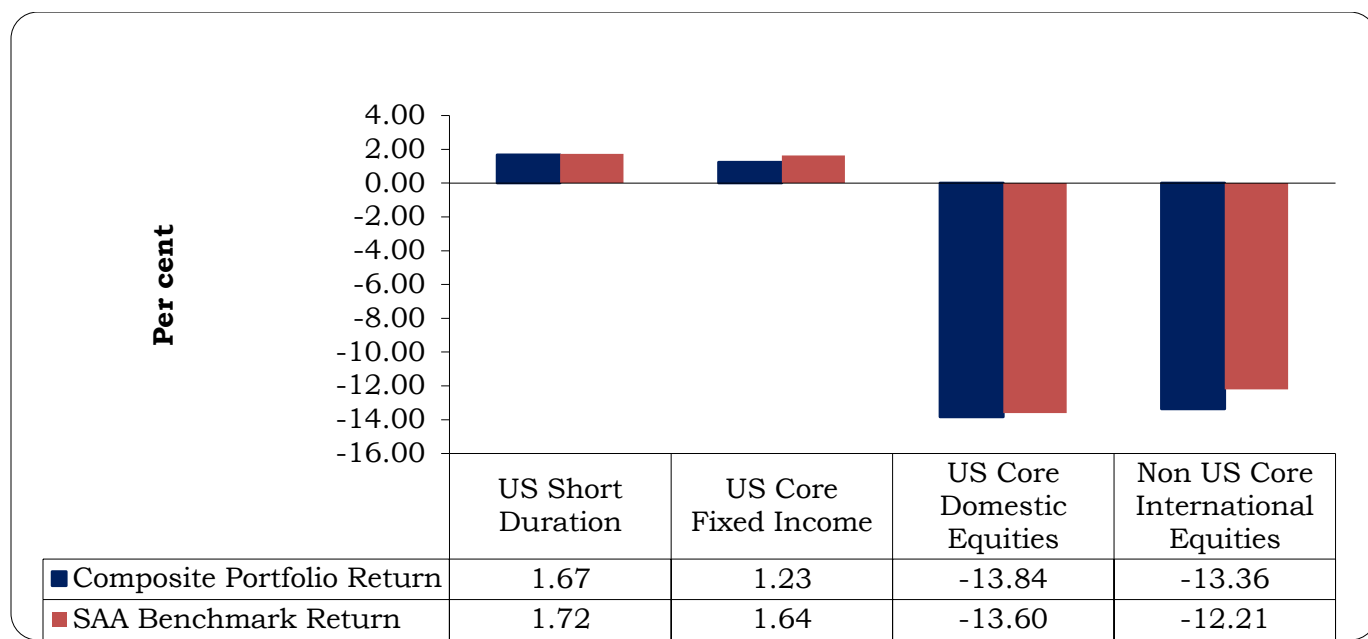
performance over the period while small positive returns on stocks held in the utilities and technology sectors helped to offset some of the losses. The net asset value of this mandate as at December 30, 2018 was **US\$1,108.3 million**, compared with US\$1,286.9 million three months earlier.

The **Non-US Core International Equity** mandate also declined, losing 13.36 per cent during the fourth quarter of 2018, compared with a decline of 12.21 per cent for its benchmark, the MSCI EAFE ex Energy index. Both stock selection and country allocation detracted from performance over the period. While stock selection within the communication services sector contributed to returns, the effects were outweighed by the negative performance of securities held in the portfolio in the materials, financials and consumer discretionary sectors. The mandate's net asset value at the end of December 2018 was **US\$978.2 million**, compared with US\$1,130.5 million at the end of September 2018.

The **US Short Duration Fixed Income** mandate performed the best on an absolute basis, posting a gain of 1.67 per cent during the fourth quarter, modestly underperforming its benchmark, the Bank of America Merrill Lynch US Treasury 1-5 year index, by 5 basis points. The decrease in US short-term Treasury yields over the quarter positively contributed to total return, however, the portfolio's long break-even inflation exposure as well as its short-duration position marginally detracted from performance. The net asset value of this mandate as at the end of December 2018 was **US\$1,350.5 million**, compared with US\$1,328.7 million at the end of September 2018.

The longer duration **US Core Domestic Fixed Income** mandate rose 1.23 per cent, underperforming its benchmark, the Barclays Capital US Aggregate Bond index, which returned 1.64 per cent over the quarter. The portfolio benefitted from interest rate curve positing over the period as well as from its exposure to the Asset Backed Sector. However, these gains would have been outweighed by the overweight allocation to the Investment Grade Corporate Credit sector which detracted from performance. The net asset value of this mandate at the end of December 2018 was **US\$2,244.8 million**, compared with US\$2,219.6 million three months earlier.

Figure 5
Absolute Returns by Mandate
For the period October – December 2018
/per cent/



SECTION 4 – COMPLIANCE AND PORTFOLIO RISKS

Compliance

During the fourth quarter of 2018, an investment manager in the equity mandate underperformed its benchmark in excess of the rolling 3-year performance threshold outlined in the investment guidelines. Notwithstanding, the investment manager has

outperformed the benchmark on a rolling 5-year and since inception basis. The Bank, as manager of the Fund, is presently reviewing the asset manager, with a view to mitigate underperformance of the Fund relative to the SAA benchmark.

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 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 4 below shows the Average Credit Quality of the US Short Duration and US Core Fixed Income Portfolios as at December 31, 2018.

Table 4
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 5 shows the weighted average duration for the US Short Duration and US Core Domestic Fixed Income portfolios as at December 31, 2018.

Table 5
Weighted Average Duration
/Years/

Mandate	Portfolio	Benchmark
----------------	------------------	------------------

US Short Duration	2.51	2.62
US Core Domestic Fixed Income	5.59	5.81

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 2018, the currency exposure for this portfolio was 96 per cent of its market value. During the quarter, all the portfolios were within their respective limits.

Appendix I

HSF Portfolio - Historical Performance

Quarter End	Current Returns			Financial YTD			Annualised Return Since Inception		
	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess
	%	%	bps	%	%	bps	%	%	bps
FY 2010									
December	0.96	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	6.69	3.07	3.12	-5.18
September	5.33	5.08	24.73	6.07	5.75	31.93	4.37	4.35	2.06
FY 2011									
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	5.72
June	1.88	1.81	6.68	5.89	5.67	22.91	4.98	4.91	7.00
September	-4.82	-4.28	-53.66	0.79	1.14	-34.89	3.57	3.63	-6.29
FY 2012									
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	-0.08
June	-0.90	-0.60	-30.42	6.95	6.98	-3.72	4.37	4.43	-6.13
September	3.53	2.98	55.03	10.73	10.18	55.02	4.68	4.65	2.07
FY 2013									
December	1.49	1.45	4.11	1.49	1.45	4.11	4.88	4.83	4.76
March	3.29	2.90	39.19	4.82	4.38	44.01	5.23	5.12	11.20
June	-0.30	-0.69	39.05	4.51	3.66	84.64	4.97	4.80	17.26
September	3.95	3.47	47.35	8.63	7.26	137.06	5.40	5.16	24.01
FY 2014									
December	3.95	2.66	129.38	3.95	2.66	129.38	5.80	5.37	42.67
March	1.46	1.30	16.28	5.47	4.00	147.73	5.80	5.37	43.52
June	2.56	2.30	25.90	8.17	6.38	178.44	5.96	5.51	45.76
September	-0.48	-0.73	25.31	7.65	5.60	204.51	5.69	5.22	47.69
FY 2015									
December	2.25	1.63	62.27	2.25	1.63	62.27	5.81	5.26	54.46
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

Quarter End	Current Returns			Financial YTD			Annualised Return Since Inception		
	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess
	%	%	bps	%	%	bps	%	%	bps
FY 2015									
September	-2.02	-2.19	16.83	2.47	1.13	134.06	5.31	4.73	58.12
FY 2016									
December	1.68	1.67	0.22	1.68	1.67	0.22	5.36	4.79	56.52
March	0.80	1.26	-46.14	2.48	2.95	-46.70	5.30	4.80	49.64
June	0.80	1.11	-30.92	3.30	4.09	-78.90	5.24	4.79	44.83
September	2.45	2.12	32.85	5.83	6.29	-45.72	5.37	4.89	47.33
FY 2017									
December	-0.46	-0.98	51.92	-0.46	-0.98	51.92	5.17	4.66	51.64
March	3.17	2.92	24.41	2.69	1.91	77.74	5.37	4.84	52.92
June	2.74	2.44	30.00	5.50	4.40	110.45	5.51	4.97	54.69
September	2.61	2.06	54.78	8.25	6.55	170.48	5.64	5.05	58.79
FY 2018									
December	2.24	1.83	40.22	2.24	1.83	40.22	5.72	5.11	61.32
March	-0.55	-0.94	38.21	1.67	0.88	78.91	5.53	4.90	63.49
June	0.26	0.21	5.36	1.94	1.09	84.52	5.43	4.81	62.52
September	1.81	1.54	27.02	3.79	2.65	113.37	5.47	4.84	63.61
FY 2019									
December	-4.69	-3.54	-114.99	-4.69	-3.54	-114.99	4.93	4.41	51.33

Notes:

- (1) Differences in totals are due to rounding.
- (2) 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.
- (3) 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 (17.5) and Non-US International Equity (17.5).
- (4) 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.

Appendix II

Heritage and Stabilisation Fund

Portfolio Valuation (USD)

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)
September 30, 2017	5,762,544,777	429,475,446	2,428,512,893	(252,548,048)
September 30, 2018	5,965,847,092	203,717,910	2,632,230,803	-

Quarterly Portfolio Valuation

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	-
June 30, 2016	5,454,568,405	42,838,704	1,869,391,888	(375,050,860)
September 30, 2016	5,584,246,290	129,645,559	1,999,037,447	-
December 31, 2016	5,555,039,859	(29,605,256)	1,969,432,191	-
March 31, 2017	5,473,047,983	170,609,885	2,140,042,076	(252,548,048)
June 30, 2017	5,619,311,033	146,006,897	2,286,048,973	-
September 30, 2017	5,762,544,777	142,463,920	2,428,512,893	-

Appendix II

Heritage and Stabilisation Fund

Portfolio Valuation (USD)

Valuation Date	Net Asset Value	Total Comprehensive Income	Accumulated Surplus & Unrealized Capital Gains/Losses	Contributions / (Withdrawals)
Quarterly Portfolio Valuation				
December 31, 2017	5,888,599,170	124,900,387	2,553,413,280	-
March 31, 2018	5,852,789,288	(36,468,342)	2,516,944,938	-
June 30, 2018	5,863,070,206	12,336,541	2,529,281,479	-
September 30,2018	5,965,847,092	102,949,324	2,632,230,803	-
December 31,2018	5,683,219,683	(486,810,763)	2,349,137,950	-

Appendix III

Summary Characteristics of Composite Benchmarks

Fixed Income Benchmarks

Key Characteristics	Bloomberg Barclays US Aggregate Index	Merrill Lynch 1-5 Index
Total Holdings	10,252	158
Coupon (%)	3.20	2.19
Duration (Years)	5.81	2.62
Average Life (Years)	8.22	2.75
Yield to Maturity (%)	3.28	2.51
Option Adjusted Spread (bps)	54	0
Average Rating (S&P)	AA	AA+
Minimum Rating (S&P)	BBB	AA+

Equity Benchmarks

Key Characteristics	Russell 3000 (ex- Energy)	MSCI EAFE (ex- Energy)
Total Holdings	2,839	882
Earnings Per Share (EPS Growth 3- 5yr fwd)	13.0	8.1
Price Earnings (P/E fwd)	15.6	11.7
Price / Book (P/B)	2.8	1.4
Weighted Average Market Capitalization* (Bn)	172.01	52.7

*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-17	Mar-18	Jun-18	Sep-18	Dec-18
Total Fund Value	5,889	5,853	5,863	5,966	5,683
Total Value of Equity	2,484	2,309	2,319	2,417	2,086
US Core Domestic Equity	1,273	1,161	1,198	1,287	1,108
Non-US Core International Equity	1,211	1,148	1,121	1,131	978
Total Value of Fixed Income	3,403	3,543	3,543	3,548	3,595
US Short Duration Fixed Income	1,226	1,325	1,327	1,329	1,351
US Core Domestic Fixed Income	2,178	2,218	2,216	2,220	2,245
Total Value of Cash or Cash Equivalents	1	1	1	0	1

NB: Differences in totals are due to rounding.

Appendix V

HSF Portfolio Quarterly Returns

/per cent/

Quarterly HSF & SAA Benchmark Returns

