

HERITAGE AND STABILISATION FUND (HSF)

QUARTERLY INVESTMENT REPORT

OCTOBER TO DECEMBER 2022

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¹ This section includes economic data available as at January 26, 2023.

EXECUTIVE SUMMARY

- Global economic growth slowed over the quarter as continued high inflation and further monetary tightening by most major central banks dampened demand. Despite mounting evidence of a deeper than expected downturn in key developed economies, concerns of a prolonged recession faded amid signs of slowing inflationary pressures and hope for more measured monetary policy action. A sharp fall in energy prices and near capacity natural gas stockpiles in Europe as well as China's earlier than anticipated re-opening further helped to reassure investors and improve the outlook.
- In the United States (US), the Consumer Price Index (CPI) declined to 6.5 per cent in December from a record high of 9.1 per cent in June. Inflation in Europe also moved marginally lower. The CPI in the United Kingdom (UK) peaked at 11.1 per cent in October and ended the quarter at 10.6 per cent in December. Similarly, Eurozone (EZ) CPI rose to 10.7 per cent in October before falling to 9.2 per cent in December. Conversely, Japan's inflation accelerated to 4.0 per cent in December from 3.0 per cent in September.
- With inflation still elevated and well above target, central banks in the US, UK and EZ continued to raise interest rates over the quarter. The US Federal Reserve (Fed) increased rates twice, adding 75 basis points in November and 50 basis points in December to bring its target range at 4.25 per cent to 4.50 per cent. The Fed kept its balance sheet reductions unchanged at US\$95.0 billion per month. Similarly, the Bank of England (BOE) hiked its bank rate twice taking it to 3.50 per cent, 75 basis points in November and 50 basis points in December. The Bank began quantitative tightening and planned to lower its bond holdings by £80 billion over the next twelve months starting in November.
- The European Central Bank (ECB) also increased its key marginal lending rate twice over the quarter. A 75 basis points increase in October was subsequently followed by a further increase of 50 basis points in December. The ECB marginal lending rate ended December at 2.75 per cent. Meanwhile, the Bank of Japan (BOJ) maintained its accommodative stance and kept its short-term interest rate target at -0.10 per cent. The BOJ, however, widened the tolerance band around its 10-year yield target of zero per

cent to 50 basis points from 25 basis points, signalling its intention on future shift in monetary stance.

- Equity and bond markets recovered over the quarter as incremental progress on the inflation front bolstered expectations for a more gradual pace of monetary tightening. The S&P 500 index advanced 7.55 per cent while other developed markets, as represented by the MSCI EAFE index, gained 17.38 per cent. US Treasury bond yields moved higher as investors reassessed monetary policy expectations against early indications of decelerating price increases. The 2-year US Treasury yield rose by 15 basis points to close at 4.43 per cent while the 10-year yield added five basis points to end the quarter at 3.87 per cent. The US investment grade bond market, as measured by the Bloomberg Barclays US Aggregate index, earned 1.87 per cent due to relatively higher interest income levels and narrower credit spread, which exceeded the negative price impact of modestly higher yields over the quarter.
- The Heritage and Stabilisation Fund (HSF) returned 5.27 per cent for the quarter, with both the fixed income and equity mandates contributing to the positive performance (see Table 1). The fixed income and equity mandates increased by 0.80 per cent and 4.43 per cent, respectively (see Table 2).
- When compared to its Strategic Asset Allocation (SAA) benchmark, which rose by 5.13 per cent, the Fund outperformed by 0.14 per cent (see Table 2 and Appendix 1). Excess returns were driven by the Fund's relative overweight to equities and underweight to fixed income while external managers' strategies in aggregate modestly detracted from performance.
- As at the end of December 2022, the total net asset value of the HSF was **US\$5,139.7 million**; approximately US\$427.3 million higher than the previous quarter's closing value of US\$4,712.4 million. On December 23, 2022, the Government contributed US\$182.2 million to the fund in accordance with Section 14 of the HSF Act (2007).

Table 1
Absolute Quarterly Returns
For the period Oct – Dec 2022
/per cent/

	Absolute Return HSF	Absolute Return Benchmark
Composite Portfolio	5.27	5.13
US Short Duration Fixed Income	0.91	0.95
US Core Domestic Fixed Income	1.83	1.87
US Core Domestic Equity	6.82	6.55
Non-US Core International Equity	16.60	17.21
USD Fixed Deposit	1.01	N/A

Table 2
Contributions to Quarterly Returns
For the period Oct – Dec 2022
/per cent/

	3 Months Portfolio Weighted Return to 31-Dec-2022	
	HSF	Benchmark
Composite Portfolio	5.27	5.13
US Short Duration Fixed Income	0.21	0.24
US Core Domestic Fixed Income	0.59	0.76
US Core Domestic Equity	1.56	1.20
Non-US Core International Equity	2.87	2.92
USD Fixed Deposit	0.04	N/A

NB: Differences in totals are due to rounding.

SECTION 1 – INTERNATIONAL ECONOMIC ENVIRONMENT

The outlook for global economic growth remained tenuous as most major central banks further tightened financial conditions in the quarter amid continued high inflation levels. Economic activity weakened over the quarter however, strong labour markets, emergency fiscal support measures and lower energy costs most notably in Europe, helped key economies avert a recession in 2022. Initial indications that pricing pressures were beginning to ease reduced the likelihood of a severe downturn in the US and Europe ex-UK. Nonetheless, the macroeconomic environment is expected to deteriorate in 2023 given ongoing headwinds from inflation and rising interest rates. Against this backdrop, in its January 2023 Global Economic Prospects report, the World Bank reduced its 2023 global growth projection to 1.7 per cent from its previous estimate of 3.0 per cent.

The US economy grew at an annualised rate of 2.9 per cent during the three months to December when compared to 3.20 per cent over the prior quarter. The expansion was driven by broad-based gains in private inventory investment as well as consumer and government spending. A decline in residential fixed investment detracted with rising financing costs hampering housing demand. The job market remained strong as companies continued to hire given ongoing labour shortages. The unemployment rate was unchanged at 3.5 per cent and wages increased by 5.0 per cent in December from 5.8 per cent in September. On the inflation front, the Consumer Price Index (CPI) trended lower for the sixth consecutive month in December to 6.5 per cent from its high of 9.1 per cent in June.

In the UK, economic activity stagnated during the fourth calendar quarter following a modest contraction of 0.3 per cent during the three months to September. The S&P Global/CIPS UK Composite Purchasing Managers Index (PMI) was 49.0 points in December from 49.1 points in September. Service sector activity helped to offset declines in manufacturing output and disruptions from widespread labour strikes which affected industries such as healthcare and transport. Households and businesses contended with record high price increases. CPI rose to 11.1 per cent in October before edging lower to 10.5 per cent in December. The government provided relief through subsidies and

energy price caps but on a limited scale given newly elected Prime Minister Rishi Sunak's pledge to shrink the fiscal deficit and reduce national debt levels.

The Eurozone economy remained in a downturn but improved marginally supported by a sharp decline in gas prices, robust household savings and government stimulus. The S&P Global Euro Area Composite PMI rose to 49.3 points in December from 48.1 points in September. Both manufacturing and service sector activity continued to contract but at a slower pace given moderating supply chain delays and a smaller decline in new orders. The job market remained resilient with unemployment at a record low in November at 6.5 per cent from 6.6 per cent in September. Meanwhile, inflation reached a record high of 10.6 per cent in October but declined to 9.2 per cent in December largely due to a steep fall in fuel costs. Above average gas storage levels stemming from an unusually warm winter and lower demand tempered concerns around energy shortages and contributed to relatively better consumer and business confidence.

In Asia, Japan's economy shrank at an annualised rate of 0.80 per cent in the three months to September due to weaker exports and a slowdown in consumer spending. This trend continued into the quarter ending December, with household purchases contracting in November by 1.2 per cent when compared to an expansion of 2.3 per cent in September. The steep depreciation in the yen helped drive costs higher and prices rose by 4.0 per cent in December from 3.0 per cent in September. Meanwhile, a significant decline in shipments to Asia drove export volume lower. China's prolonged Covid-19 lockdowns halted industrial production and crippled economic activity for most of the period. Nationwide protests at the end of November prompted the Chinese government to remove many of its quarantine and testing requirements. However, the swift re-opening resulted in a resurgence of infections which hindered recovery efforts and tempered optimism over a rapid revival in the world's second-largest economy.

Major central banks re-iterated their commitment to achieving price stability and continued to tighten monetary policy over the quarter. The US Federal Reserve (Fed) raised rates by 75 basis points in November, marking its fourth consecutive increase of this size. This was followed by a 50 basis points hike in December which brought the Fed funds rate to 4.25 per cent – 4.50 per cent. Officials indicated that conditions were nearing but were not yet sufficiently restrictive and projected that rates would need to

rise further to end 2023 at 5.0 per cent to 5.25 per cent. Balance sheet reductions were maintained at a pace of US\$95.0 billion a month. Similarly, the Bank of England (BOE) increased interest rates by 75 basis points in November and 50 basis points in December to bring the bank rate to 3.50 per cent. The BOE announced it would reduce its bond holdings by £80 billion over the next twelve months starting in November by not reinvesting maturing bonds as well as through outright sales.

The European Central Bank (ECB) also raised interest rates twice over the quarter. The Governing Council increased all three key ECB interest rates by 75 basis points in October and 50 basis points in December. The marginal lending rate ended the quarter at 2.75 per cent however, officials judged interest rates would still need to rise significantly to combat inflation. To reinforce the impact of its interest rate increases, the Bank plans to lower its bond holdings beginning March 2023 at an average pace of €15 billion per month. In contrast to its peers, the BOJ maintained its accommodative stance. While it kept its short-term interest rate at -0.10 per cent, policymakers decided to widen the tolerance range for the 10-year bond to 50 basis points on either side of its 0.0 per cent target from 25 basis points. The move surprised markets and heightened speculation around whether the BOJ would consider tightening monetary policy before Governor Kuroda's term ends in April 2023.

SECTION 2 – CAPITAL AND MONEY MARKET REVIEW

Global equity and fixed income markets rallied during the first two months of the quarter on signs of slowing inflationary pressures and hope for less aggressive interest rate hikes by central banks. Heightened speculation that China could begin easing its widespread Covid-19 lockdowns also helped to buoy sentiment. However, stocks and bonds retreated towards the end of December as the prospect of even tighter monetary policy alongside worsening economic conditions reignited recession fears.

In comparison to the previous quarter, market volatility declined as progress on the inflation front in the US and Europe provided some relief to investors. The US Chicago Board Options Exchange Volatility Index (VIX) lost 9.95 points to close at 21.67 points at the end of December. Similarly, the European measure of investor anxiety, the Euro

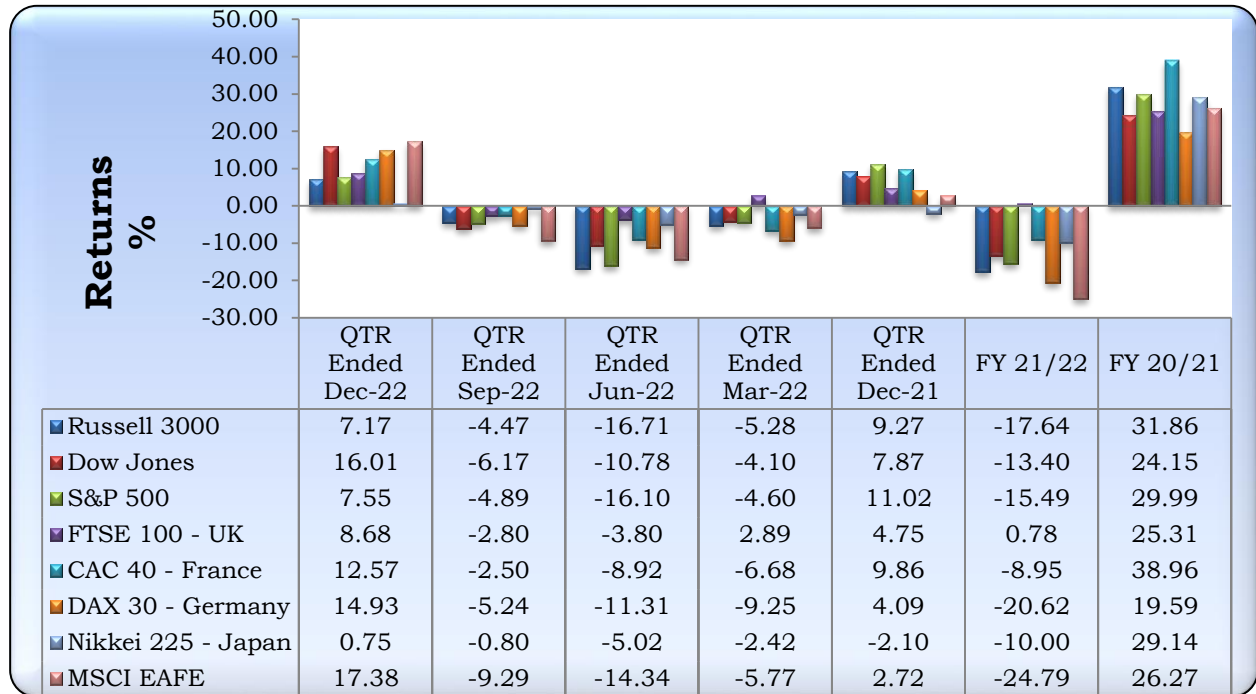
Stoxx 50 Volatility Index (VSTOXX), decreased to 20.89 points from 30.71 points at the end of the prior quarter.

The US Standard and Poor's (S&P) 500 index returned 7.55 per cent. Stocks rallied on better-than-expected corporate profit results and lower than projected inflation during the first two months of the quarter. However, heightened recession concerns and downward revisions to 2023 earnings forecasts lead equities lower into year-end and tempered overall gains. Energy and industrials were the best performing sectors buoyed in part by optimism over the removal of Covid-19 restrictions in China and hopes for a swift uptick in demand. At the same time, the consumer discretionary and communication services sectors declined amid concerns around valuation levels given the weaker earnings outlook.

Non-US developed stock markets, as represented by the MSCI EAFE index, surged 17.38 per cent, when measured in US dollars (see Figure 1). Exposure to local currencies augmented performance due to the strong depreciation of the US dollar over the quarter. In comparison, the MSCI EAFE (USD Hedged) index gained 9.71 per cent. Regionally, European equity markets benefitted from better than anticipated economic data and easing energy supply concerns. Despite ongoing geopolitical tensions, Germany's DAX index and France's CAC 40 index increased by 14.93 per cent and 12.57 per cent, respectively. UK stocks rose with the FTSE 100 index adding 8.68 per cent as the appointment of a new Prime Minister in October helped stabilise financial markets. In Asia, Japan's Nikkei 225 index earned 0.75 per cent as stocks retraced much of their earlier gains in the quarter as risk sentiment sunk on renewed recession fears and a surprise adjustment to the BOJ's yield curve control tolerance range.

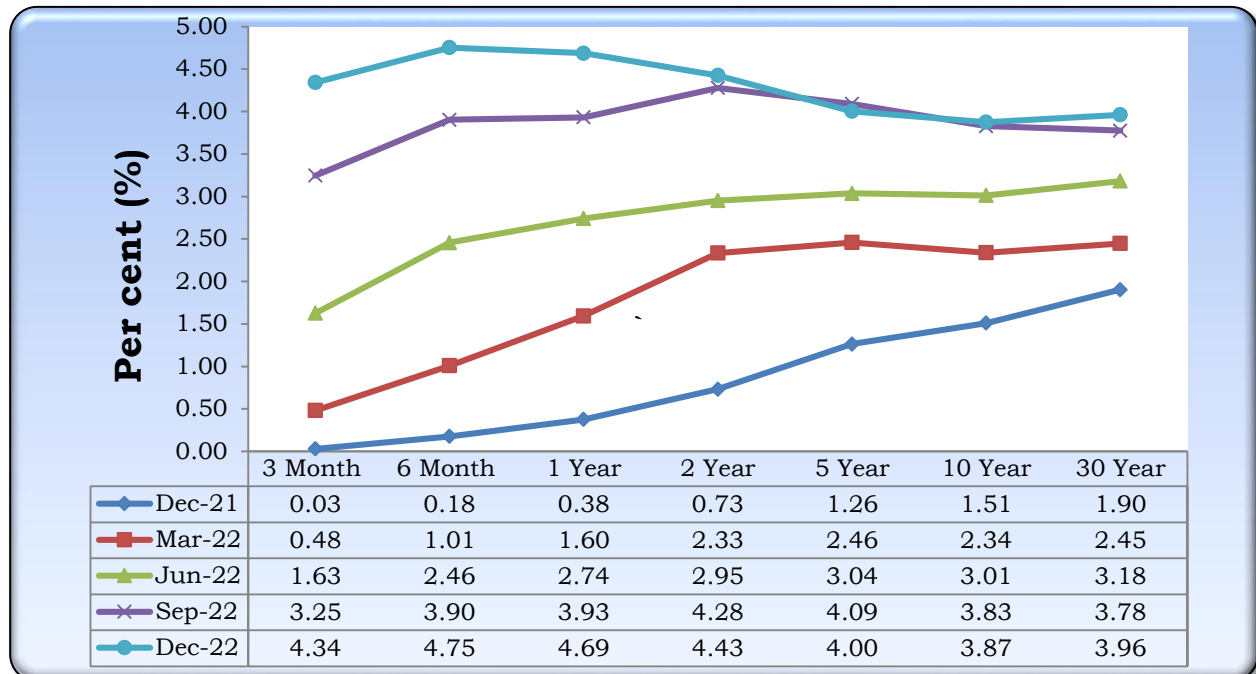
US treasury yield movements were volatile over the quarter as investors assessed signs of slowing inflationary pressures and worsening economic activity against expectations for additional monetary policy tightening. Overall, the 2-year yield rose by 15 basis points to end at 4.43 per cent, while the 10-year yield recovered from a low of 3.42 per cent to close the quarter at 3.87 per cent (see Figure 2). The yield curve inversion extended to the 3-month to 10-year segment of the curve and the differential between short-term and long-term yields increased over the period.

Figure 1
Total Returns on Equity Indices
/Per cent/



Source: Bloomberg

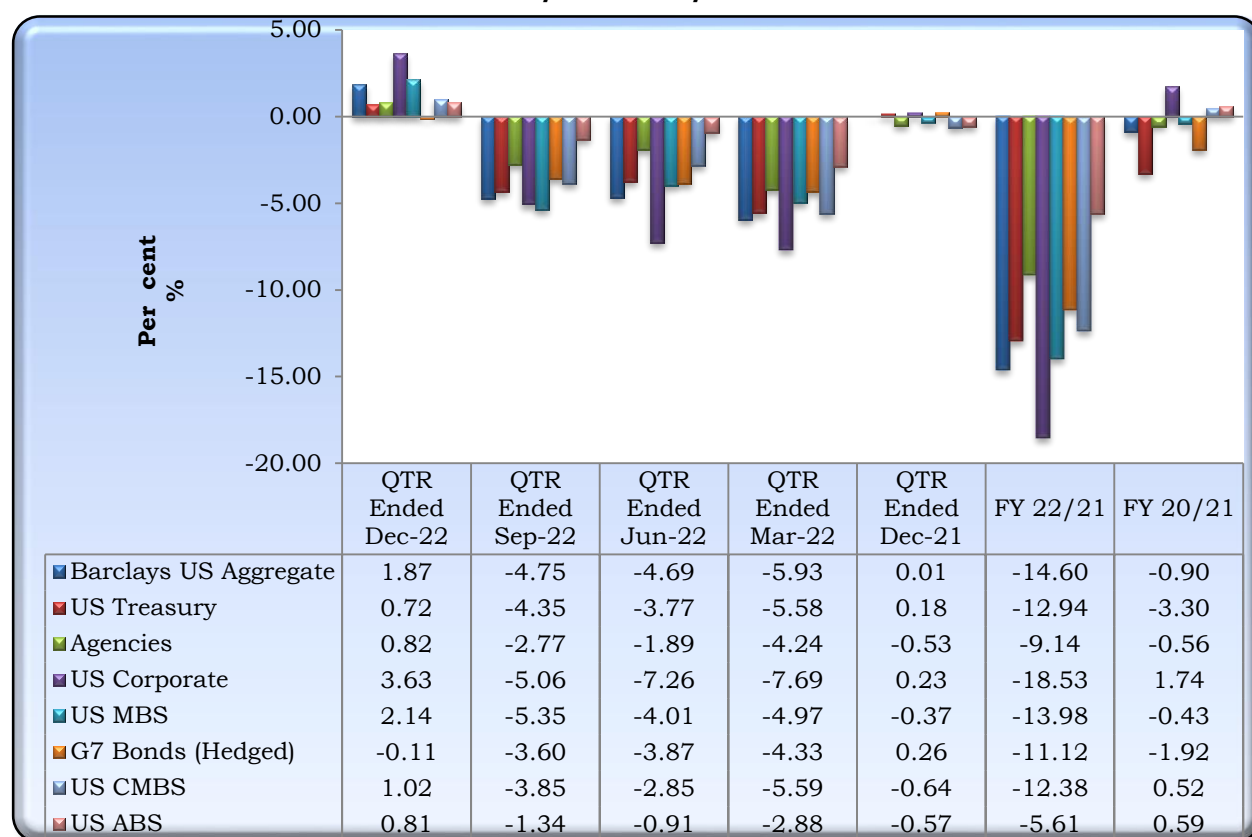
Figure 2
US Treasury Curve
/Per Cent/



Source: Bloomberg

The broader US fixed income market, as represented by the Bloomberg Barclays US Aggregate Bond Index, earned 1.87 per cent in the three months to December following steep losses for most of 2022 (see Figure 3). Interest income return coupled with tighter credit spreads, particularly in the corporate bond and mortgage-backed security sectors outpaced the negative price impact of incrementally higher yields over the quarter. At the sub-sector level, US Corporate Bonds and US Mortgage Backed Securities (MBS) rose by 3.63 per cent and 2.14 per cent, respectively. Meanwhile, G7 Bonds (Hedged) lost a modest 0.11 per cent.

Figure 3
Returns on Fixed Income Indices
/Per Cent/

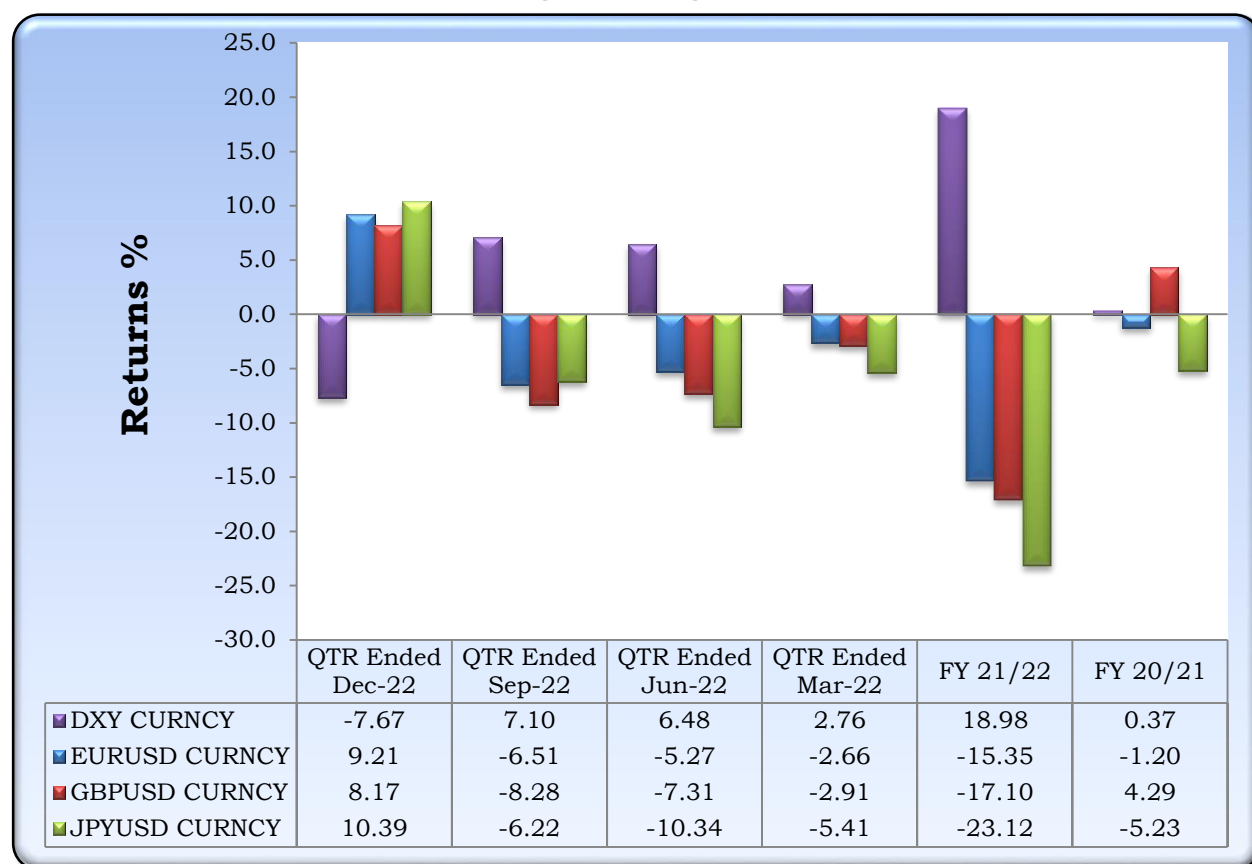


Source: Bloomberg

The strong US dollar trend for most of 2022 reversed during the quarter. The Dollar Spot Index (DXY) depreciated by 7.67 per cent given expectations for the Fed to slow its pace of rate hikes going forward. Conversely, the Japanese Yen strengthened 10.39 per cent against the dollar following a prolonged period of weakness. The BOJ's surprise

widening of its Yield Curve Control target range brought forward expectations for when the Central Bank may shift away from its ultra-accommodative stance. Meanwhile, the British Pound appreciated by 8.17 per cent versus the dollar as political risk abated with the appointment of Prime Minister Rishi Sunak in October. At the same time, the Euro rose by 9.21 per cent on better than expected economic data and an improving short-term outlook given falling natural gas prices.

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

Table 3 reports the actual mandate weights of the HSF's Investment Portfolio relative to its approved SAA for the quarter ended December 2022 and the previous three (3) quarters.

Table 3
Portfolio Composition relative to the Approved SAA²
/per cent/

<i>Portfolio Weights</i>	<i>Asset Class</i>		<i>Mar-22</i>	<i>Jun-22</i>	<i>Sep-22</i>	<i>Dec-22</i>
		<i>Target Weight SAA</i>	<i>Actual % of Fund</i>	<i>Actual % of Fund</i>	<i>Actual % of Fund</i>	<i>Actual % of Fund</i>
	US Short Duration Fixed Income	25.00	18.63	20.54	23.54	21.77
	US Core Domestic Fixed Income	40.00	31.10	32.76	33.62	31.38
	US Core Domestic Equity	17.50	26.08	24.07	21.94	21.48
	Non-US Core International Equity	17.50	24.20	22.63	17.44	18.62
	USD Fixed Deposit	0.00	0.00	0.00	3.46	6.75

Totals may not sum to 100 due to rounding.

During the three months ended December 2022, fluctuations in the market values of the HSF's assets as well as the additional allocation to USD Fixed Deposits contributed to the changes in the mandate weights. Combined, this increased the underweight to fixed income securities and corresponding overweight to equities as at the end of the quarter. When compared to the SAA, the US Core Domestic Fixed Income mandate held the largest underweight position of 8.62 per cent while the USD Fixed Deposit portfolio had the largest overweight exposure of 6.75 per cent (see Table 3).

² The Board's approved investment policy allow the mandate weights to deviate from the approved SAA weights by +/- 5 per cent.

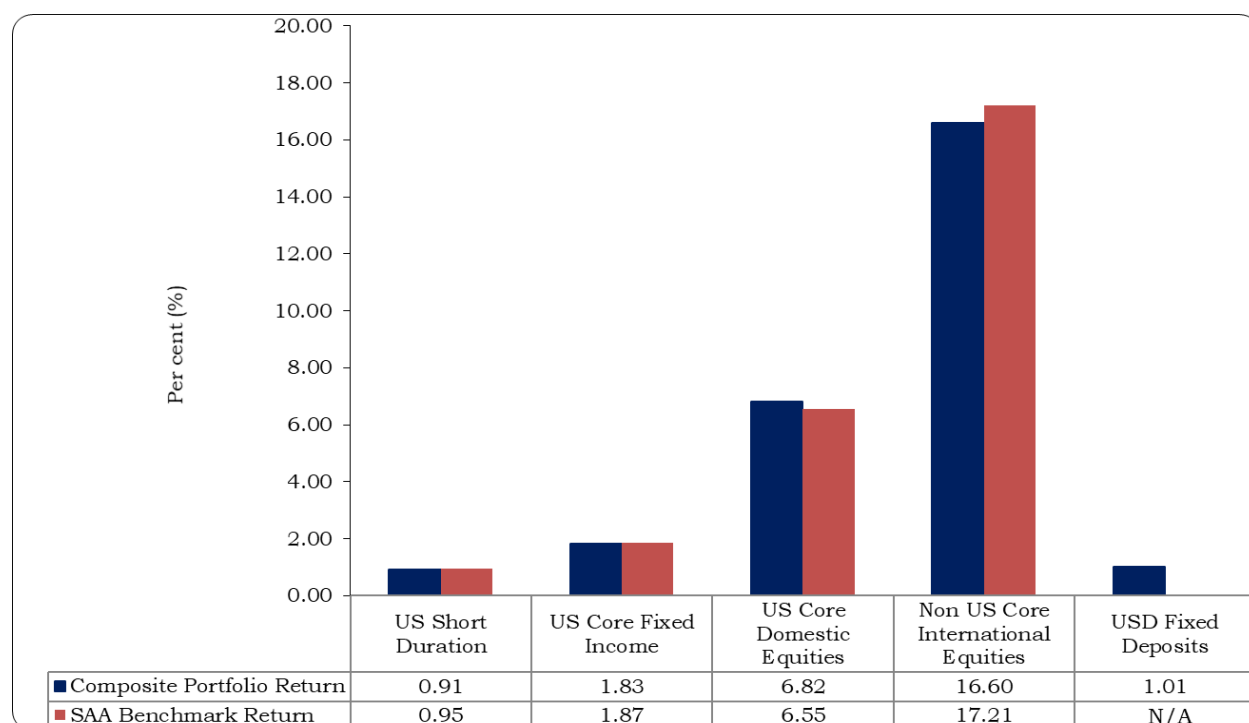
The total net asset value of the Fund as at the end of December 2022 was **US\$5,139.7 million**, compared to US\$4,712.4 million at the end of the previous quarter. Of this total, the Investment Portfolio was valued at US\$5,138.5 million, while the remaining portion was held in operating cash accounts to meet the day-to-day expenses that arise from the management of the Fund.

A deposit of \$182,213,277.60 was made on December 23, 2022. Of this amount, \$182.0 million was allocated to the USD Fixed Deposit Portfolio in keeping with the Board's stance to mitigate the potential downside risks to the overall Fund amid the highly uncertain outlook. The remaining contributed cash was held the HSF's cash account.

Performance of the Investment Portfolio

During the first fiscal quarter of 2023, the HSF's Investment Portfolio returned 5.27 per cent due to positive performance within both the fixed income and equity mandates (see Figure 5).

Figure 5
Absolute Returns by Mandate
For the period Oct – Dec 2022
/per cent/



When compared with its SAA benchmark³, which returned 5.13 per cent, the HSF outperformed by 0.14 per cent. The Fund's relative overweight to equities and underweight to fixed income was the main driver of excess returns. In aggregate, external managers' strategies across both the fixed income and equity mandates modestly detracted from performance.

The **US Core Domestic Equity** mandate gained 6.82 per cent over the quarter ending December 2022. This compares to a return of 6.55 per cent for its benchmark, the Russell 3000 ex-Energy index (see Figure 5). Stock selection in consumer discretionary, industrials and technology added to performance while, stock choices within financials and healthcare detracted. The net asset value of the mandate ended December 2022 at **US\$1,103.7 million**, up from US\$1,033.7 million on September 30, 2022.

The **Non-US Core International Equity** mandate increased by 16.60 per cent over the quarter and underperformed its benchmark, the MSCI EAFE ex Energy index by 61 basis points. Both country and stock selection decisions negatively impacted returns. Poor positioning in Australia, France and Switzerland was partially mitigated by strong stock decisions in Japan. During the quarter, the mandate's net asset value increased by \$135.3 million to **US\$956.7 million** as at the end of December 2022.

The **US Short Duration Fixed Income** mandate returned 0.91 per cent while its benchmark, the Bank of America Merrill Lynch US Treasury 1-5 year index, earned 0.95 per cent. This mandate underperformed its benchmark, Bank of America Merrill Lynch US Treasury 1-5 year index, by four basis points. The portfolio's short duration positioning contributed to positive returns relative to the benchmark, while exposure to high quality credit sectors detracted modestly. The net asset value of the mandate as at December 31, 2022 was **US\$1,118.9 million**, up from US\$1,109.0 million as at the end of the prior quarter.

The longer duration **US Core Domestic Fixed Income** mandate rose by 1.83 per cent over the first quarter of the financial year and outperformed its benchmark, the

³ The SAA benchmark is a blended benchmark, which comprises of the 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%).

Bloomberg Barclays US Aggregate Bond index by four basis points. Key interest rate positioning contributed to performance. In addition, an overweight to and security selection within investment grade corporates added to excess returns. This was partly offset by excess allocations to commercial mortgage backed securities. The net asset value of the mandate as at the end of the quarter was **US\$1,612.5 million** compared to US\$1,584.0 million three months earlier.

The **USD Fixed Deposit** portfolio earned 1.01 per cent over the quarter. The value as at the end of the December 2022 was **US\$346.8 million** compared to US\$163.0 million on September 30, 2022. This increase was mainly due to the additional allocation of US\$182.0 million to fixed deposits from the government's contribution in December 2022.

SECTION 4 – COMPLIANCE AND PORTFOLIO RISKS

Compliance

At the end of the quarter, one asset manager within the Non-US Core International Equity mandate fell below the performance objectives outlined in the investment guidelines. Additionally, following extreme market events that transpired at the beginning of the pandemic in March 2020, the managers in the US Core Domestic Fixed Income mandate continued to operate above the risk target relative to the benchmark, as stated in the investment guidelines. The Central Bank, as manager of the Fund, aims to bring the managers back in compliance with the investment guidelines as soon as feasible. These managers continue to be closely monitored by the Central Bank and frequent discussions are held regarding the market environment and portfolio positioning.

During the quarter, the relative deviation of the mandate weights from the approved SAA were maintained and reflected market value movements as well as the additional allocation to USD fixed deposits. As at December 31, 2022, asset classes varied above the allowable +/- 5 per cent deviation (see Table 3). The Central Bank will continue to monitor the fund's asset class exposures and provide monthly updates to the Board.

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 minimised 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 Investors Services; 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 Investors Services or Fitch Ratings Incorporated. 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, 2022.

Table 4
Average Credit Rating

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

Concentration Risk

Concentration or diversification risk is minimised by investing across various asset types and holding a large number of positions within an asset class. The aim is to minimise risk and/or maximise return by investing in a wide cross-section of asset classes and positions that would each react differently to the same market event. As such, it is likely that when one has strong returns, another may have lower returns to the same market event.

The portfolio is currently invested across five (5) asset groupings as follows: US Short Duration Fixed Income; US Core Domestic Fixed Income; US Core Domestic Equity and Non-US Core International Equity and USD Fixed Deposits. Concentration risk is also minimised within asset groups by approved market exposure and issuer holding limits. 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. For the US Short Duration Fixed Income mandate, the allowable range is six months longer or shorter than the weighted average duration of its respective benchmark. While the US Core Domestic Fixed Income mandate has an allowable range of 12 months longer or shorter than the weighted average duration of its 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, 2022.

Table 5
Weighted Average Duration
/Years/

Mandate	Portfolio	Benchmark
US Short Duration	2.21	2.55
US Core Domestic Fixed Income	6.07	6.17

Currency Risk

Currency risk is managed by containing and managing the exposure to non-US dollar instruments. For the fixed income mandates, no more than 10 per cent of the market value of the portfolio can be invested in securities denominated in currencies other than the US Dollar. For these mandates, non-US dollar currency exposure is fully hedged into the US Dollar. However, the effectiveness of the hedge may vary depending on market conditions.

For the US Core Domestic Equity mandate, no more than 5 per cent of the market value of the portfolio can be invested in securities denominated in currencies other than the US Dollar. The performance benchmark for the Non-US Core International Equity portfolio is the custom MSCI EAFE ex-energy Index. The index comprises of equity securities of issuers domiciled in developed markets countries, excluding the US and Canada. Where benchmark securities are quoted in currencies other than the US dollar, the Fund accepts the currency risk. For this mandate, however, managers can hedge up to 15 per cent of the market value of their currency exposure into the US dollar, the base reporting currency for the HSF. At the end of December 2022, 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

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
September	-2.02	-2.19	16.83	2.47	1.13	134.06	5.31	4.73	58.12

Quarter End	Current Returns			Financial YTD			Annualised Return Since Inception		
	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess
	%	%	bps	%	%	bps	%	%	bps
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
March	5.93	5.61	31.25	0.96	1.88	-91.66	5.33	4.79	53.03
June	3.01	3.26	-25.10	4.00	5.20	-119.99	5.47	4.97	49.95
September	1.05	1.27	-21.70	5.10	6.54	-144.08	5.44	4.97	47.15
FY 2020									
December	3.62	3.20	41.90	3.62	3.20	41.90	5.63	5.13	49.64
March	-7.33	-5.51	-182.43	-3.98	-2.48	-149.43	4.90	4.58	32.73
June	8.62	7.57	104.53	4.30	4.90	-60.38	5.46	5.06	39.94
September	3.74	2.98	76.36	8.20	8.03	17.42	5.65	5.20	45.01

Quarter End	Current Returns			Financial YTD			Annualised Return Since Inception		
	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess	Portfolio	Benchmark	Excess
	%	%	bps	%	%	bps	%	%	bps
FY 2021									
December	6.43	5.50	93.52	6.43	5.50	93.52	6.02	5.51	51.10
March	1.28	0.08	119.45	7.79	5.58	220.73	6.00	5.41	59.10
June	4.00	3.09	90.18	12.10	8.85	324.76	6.19	5.54	64.60
September	-0.31	-0.09	-22.00	11.75	8.75	299.80	6.05	5.44	61.82
FY 2022									
December	2.97	1.98	99.31	2.97	1.98	99.31	6.16	5.48	67.75
March	-5.69	-5.44	-25.12	-2.89	-3.57	68.04	5.64	5.00	64.44
June	-9.91	-7.81	-209.37	-12.51	-11.10	-140.61	4.83	4.36	47.24
September	-4.59	-4.93	34.58	-16.52	-15.49	-103.41	4.43	3.95	48.73
FY 2023									
December	5.27	5.13	14.43	5.27	5.13	14.43	4.70	4.21	48.99

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	-
September 30, 2019	6,255,349,599	288,837,111	2,921,067,914	-
September 30, 2020	5,731,799,397	457,090,777	3,378,158,691	(979,853,158)
September 30, 2021	5,463,893,835	624,178,449	4,002,337,140	(892,714,533)
September 30, 2022	4,712,444,758	(913,456,918)	3,088,880,222	163,994,499
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	-

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, 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	-
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	-
March 31, 2019	6,016,429,263	333,123,750	2,682,261,700	-
June 30, 2019	6,194,328,757	177,424,921	2,859,686,621	-
September 30, 2019	6,255,349,599	61,381,293	2,921,067,914	-
December 31, 2019	6,478,340,872	222,180,512	3,143,248,426	-
March 31, 2020	5,925,283,653	(473,394,404)	2,669,854,022	(79,853,158)
June 30, 2020	5,817,072,795	493,393,358	3,163,247,380	(600,000,000)
September 30, 2020	5,731,799,397	214,911,311	3,378,158,691	(300,000,000)
December 31, 2020	5,888,114,410	355,398,920	3,733,557,611	(198,943,283)
March 31, 2021	5,661,689,420	67,788,202	3,801,345,814	(293,771,250)
June 30, 2021	5,583,193,276	220,867,117	4,022,212,931	(300,000,000)
September 30, 2021	5,463,893,835	(19,875,791)	4,002,337,140	(100,000,000)
December 31, 2021	5,623,159,544	158,986,912	4,161,324,052	-
March 31, 2022	5,299,527,705	(323,446,707)	3,837,877,345	-
June 30, 2022	4,771,488,412	(527,955,978)	3,309,921,367	-
September 30, 2022	4,712,444,758	(221,041,145)	3,088,880,222	163,994,499
December 31, 2022	5,139,740,767	245,008,297	3,333,888,519	182,213,278

Appendix III

Summary Characteristics of Composite Benchmarks

Fixed Income Benchmarks

Key Characteristics	Bloomberg Barclays US Aggregate Index	Merrill Lynch 1-5 Index
Total Holdings	13,184	155
Coupon (%)	2.69	1.78
Duration (Years)	6.17	2.55
Average Life (Years)	8.44	2.7
Yield to Maturity (%)	4.68	4.33
Option Adjusted Spread (bps)	51	1
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	2,816	769
Earnings Per Share (EPS Growth 3-5yr fwd.)	11.5	8.8
Price Earnings (P/E fwd.)	17.3	13.1
Price / Book (P/B)	3.4	1.6
Weighted Average Market Capitalisation* (Bn)	368.1	79.9

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

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

	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22
Total Fund Value	5,623.2	5,299.5	4,771.5	4,712.4	5,139.7
Total Value of Equity	2,850	2,663	2,227	1,855	2,060
US Core Domestic Equity	1,474	1,381	1,148	1,034	1,104
Non-US Core International Equity	1,377	1,282	1,079	821	957
Total Value of Fixed Income	2,772	2,634	2,542	2,693	2,731
US Short Duration Fixed Income	1,015	987	980	1,109	1,119
US Core Domestic Fixed Income	1,757	1,647	1,562	1,584	1,612
Internal Portfolio	--	--	--	163	347
Total Value of Operating Cash	1	2	2	1	1

NB: Differences in totals are due to rounding.

Appendix V

HSF Portfolio and SAA Benchmark Quarterly Returns

/per cent/

