HERITAGE AND STABILISATION FUND (HSF)

QUARTERLY INVESTMENT REPORT

APRIL TO JUNE 2022

TABLE OF CONTENTS

[1] This section includes economic data available as at July 19, 2022.

EXECUTIVE SUMMARY

- The global economic environment deteriorated in the second quarter of calendar year 2022 (April-June) with a sharp slowdown in economic activity and an acceleration in the already, unusually high rate of inflation. These developments raised monetary policy concerns and questions about whether central banks can in fact achieve a soft economic landing this year from their efforts to normalise monetary rates. According to the IMF World Economic Outlook (WEO), global output contracted in the second quarter of 2022 owing mainly to adverse spillovers on economic activity of the war in Ukraine and China's restrictive COVID policy, which resulted in frequent lockdowns.

- In the quarter, the major developed economies, in particular the United States (US), the Eurozone (EU) and the United Kingdom (UK), continued to be beset by the unfolding shocks related to the Russian-Ukraine conflict. Economic data for the US suggested a small decline in growth of 0.9 per cent in the second quarter, following a somewhat larger fall of 1.6 per cent in the previous quarter. Surprisingly, the decline in two consecutive quarters appear to have co-existed with a persistently robust labour market as reflected in the 3.5 per cent US unemployment rate and buoyant corporate profits. In the UK, real GDP, which grew by 0.8 per cent in the first quarter of 2022, remained virtually unchanged in the second quarter. Notwithstanding the high uncertainty in energy supply and a surge in inflation, real GDP in the EU increased by 0.7 per cent, slightly higher than the 0.5 per cent recorded in the first quarter.

- Inflation in the US accelerated from 8.5 per cent at the end of the March quarter to 9.1 per cent in June. In the EU, there was an even more rapid increase in inflation from 7.8 per cent to 9.6 per cent, while inflation in the UK rose from 7 per cent in March to 9.4 per cent in June.

- With inflation continuing at rates not seen in more than four decades, the Central Banks of the three jurisdictions cited above have underscored their policy priority to inflation-reduction, in order to stabilise financial markets and re-establish a firm basis for medium term economic growth. Thus, the Bank of England (BOE), which started its monetary tightening programme in December 2021, repeated the 25 basis points increase in its Bank rate five times between January and June 2022. However, following the surge in inflation to double digits in June, the BOE raised the Bank rate by 50 basis points in July.

- After keeping its benchmark rate at zero for three years, the US Federal Reserve announced a 25 basis points increase its policy interest rate in March 2022. The policy rate was then increased twice in the April-June quarter --by 50 basis points in May and 75 basis points in June and by another by another 75 basis points in July.

- The European Central Bank (ECB) had left its policy interest rate unchanged for eleven years, even in the first half of 2022 when inflation soared to levels not seen in four decades. However, on July 21, the ECB announced a 50 basis points increase in its benchmark interest rate with a commitment that "*at upcoming meetings, further normalisation of interest rates will be appropriate*." The ECB also announced the introduction of a Transmission Protection Instrument to support interest rate mechanism and to be activated "*to counter disorderly market dynamics that pose a threat to the transmission of monetary policy across the euro area*."

- In addition to a spike in oil prices, Russia's invasion of Ukraine heightened fears about inflation, restrictive monetary policies and a looming recession. With the increase in investor uncertainty, market volatility became elevated. Thus, despite solid corporate earnings, US equity markets sold-off over the quarter ended June 2022, with the S&P 500 index losing 16.11 per cent over the three-month period. Other developed markets, as represented by the MSCI EAFE index, fell by 14.34 per cent over the quarter. Meanwhile, central banks' monetary policies pushed sovereign bond yields higher. The 2-year US Treasury yield increased by 62 basis points to close at 2.95 per cent while, the 10-year yield rose 67 basis points to 3.01 per cent. The US investment grade bond market, as represented by the Bloomberg Barclays US Aggregate, fell by 4.69 per cent largely due to the rising rate environment and wider credit spreads.

- During the quarter, the HSF lost 9.91 per cent. While the main driver was the decline in equity assets, the fixed income mandates also contributed to the negative performance (see Table 1). The fixed income and equity mandates declined by 1.74 per cent and 8.33 per cent, respectively (see Table 2).

- When compared to its Strategic Asset Allocation (SAA) benchmark, which lost 7.81 per cent, the Fund underperformed by 2.09 per cent (see Table 2 and Appendix I). The HSF's overweight allocation to equities and corresponding underweight to fixed income securities, relative to its SAA benchmark, was the main reason for the negative excess returns. Poor performances by the asset managers in the Non-US Core International Equity and the US Core Domestic Fixed Income mandates also detracted from relative performance.

- As at the end of June 2022, the total net asset value of the HSF was **US$4,771.5 million,** approximately US$528.0 million lower than the previous quarter's closing value of US$5,299.5 million.

- The decline in the value of the HSF in the quarter ended June 2022 and the uncertain short-term outlook underscored the need to rebalance the Fund in order to achieve a better risk-return performance or at minimum preserve its capital value. After prolonged discussions, the Board and the Central Bank HSF management Team reached agreement on a short-term rebalancing plan, which included the following as its key elements: (i) a reduction in the Fund's equity mandate mainly by reducing the Fund's non-US equity holdings; (ii) a corresponding increase in the Fund's fixed-income mandate, with a bias toward US short duration securities (mainly US Treasuries) and other higher quality fixed income securities. The implementation of the rebalancing plan began in August 2022.

- **Postscript**. Early indications of an easing of price pressures and the announcement that US inflation slowed to 8.5 per cent in July combined to produce four consecutive weeks of gains in the S&P 500. This rally contrasts with the first half of the year when US equities had their worst start to a year in fifty years. Buoyed by this equity performance, the value of the HSF rose to US$5,029.6 million end of day 12 August, up from US$4,771.5 million at quarter ended June 2022.

Table 1
Absolute Quarterly Returns
For the period Apr – Jun 2022
/per cent/

	Absolute Return HSF	Absolute Return Benchmark
Composite Portfolio	**-9.91**	**-7.81**
US Short Duration Fixed Income	-0.69	-0.81
US Core Domestic Fixed Income	-5.14	-4.69
US Core Domestic Equity	-16.84	-17.13
Non-US Core International Equity	-15.68	-14.96

Table 2
Contributions to Quarterly Returns
For the period Apr – Jun 2022
/per cent/

	3 Months Portfolio Weighted Return to 30-Jun-2022	
	HSF	Benchmark
Composite Portfolio	**-9.91**	**-7.81**
US Short Duration Fixed Income	-0.13	-0.20
US Core Domestic Fixed Income	-1.61	-1.88
US Core Domestic Equity	-4.45	-3.12
Non-US Core International Equity	-3.88	-2.70

NB: Differences in totals are due to rounding.

SECTION 1 – INTERNATIONAL ECONOMIC ENVIRONMENT

Persistently high inflation, supply chain delays, the war in Ukraine along with lockdowns in China impeded the global recovery from the pandemic. The economic outlook deteriorated over the quarter as countries grappled with the harmful effects of soaring prices and tighter financial conditions. Most major developed central banks moved more forcefully to stem the rise in prices and ensure inflation expectations remained anchored near policy targets. The World Bank in its Global Economic Prospects (June 2022) downgraded its global growth outlook to 2.9 per cent in 2022 from 5.7 per cent in 2021. The report highlighted the dangers of stagflation given expectations for above-average inflation and sluggish growth while acknowledging the increased risks of a recession.

US economic growth remained subdued following a contraction of 1.6 per cent (annualised) in the three months to March. The S&P Global Composite Purchasing Managers Index (PMI) fell to 52.3 points in June from 57.7 points at the end of the prior quarter. Business and consumer confidence sunk and contributed to the drop in demand with both the manufacturing and service sectors reporting broad-based weakness. The Consumer Price Index reached a new 40-year high in June, accelerating to an annual rate of 9.1 per cent amid a surge in energy prices as well as higher food and housing costs. Labour market and consumer spending remained resilient with strong wage growth helping to ease the burden from the rising cost of living. Average hourly earnings increased by 6.4 per cent in June and the unemployment rate was steady at 3.6 per cent in June, its lowest level since February 2020.

The economic toll stemming from the Russia-Ukraine war was magnified in Europe given the region's larger exposure to the conflict through trade relations and Russian energy dependence. The UK manufacturing sector output growth stalled and new order demand contracted. Businesses in the service industry were also met with a slowdown in consumer spending as higher prices reduced purchasing power and curtailed discretionary income. The S&P Global /CIPS Services PMI reflected a sharp downturn falling from 62.6 points in March to 54.3 points in June 2022. Soaring housing, utilities, transportation and food costs pushed inflation even higher to 9.4 per cent in June from 7.0 per cent in March. Labour markets remained robust with record jobs vacancies. The unemployment rate was near its lows in May at 3.8 per cent and wages excluding bonuses grew by 4.3 per cent.

Similarly, the threat of severe energy shortages undermined the economic outlook for the Eurozone countries. The S&P Global Euro Area Composite PMI fell to 52.0 points in June from 54.9 points in March. Service businesses were supported early in the quarter from a boost in activity following the relaxation of Covid-19 restrictions but the rebound quickly faded by June. Meanwhile, manufacturing output continued to be constrained by supply chain bottlenecks and a drop in new orders signalled a further slowdown ahead. The annual inflation rate in the Euro Area reached a record high of 8.6 per cent in June from 7.4 per cent in March as sanctions against Russia pushed fuel and natural gas prices to elevated levels.

In contrast to its peers, the Japanese economy improved over the quarter aided by the rollback of Covid-19 restrictions starting in May. The au Jibun Bank Japan Composite PMI rose to 53.0 in June from to 50.3 points in March. The latest figure marked the fastest growth in the private sector in seven months. Service sector activity drove most of the gains, as a strong uptick in demand fuelled the fastest rate of expansion since 2013. In contrast, manufacturing production stalled with a sharp downturn in exports while raw material shortages and supply chain delays further slowed operations. Consumer confidence remained subdued at 32.2 in June from 32.7 points in March with the worsening global macroeconomic outlook overshadowing the country's modest post-pandemic recovery. Inflationary pressures rose pushing the consumer price index to 2.4 per cent in June from 1.2 per cent in March. In addition to the surge in fuel and food prices, a significantly weaker yen added to overall import costs.

Most major developed central banks conveyed their commitment to combat persistently high inflation and moved to tighten monetary policy at a more rapid pace, while remaining attentive to the increased risks to growth. The US Federal Reserve (Fed) raised its key policy rate by 50 basis points in May and announced a larger 75 basis points hike in June. With its target range at 1.50 per cent to 1.75 per cent, the Fed also began to reduce its balance sheet at an initial run-off rate of US$30.0 billion a month for US Treasuries and US$17.5 billion for agency mortgage-backed securities. Likewise, the Bank of England increased its policy rate by 25 basis points to 1.25 per cent in June, marking its fifth consecutive rate hike. The European Central Bank kept its deposit rate at -0.50 per cent but brought forward the timing of its first rate hike to July. Conversely, the Bank of Japan maintained its accommodative stance citing concerns around the slowing global growth outlook given an already fragile economy.

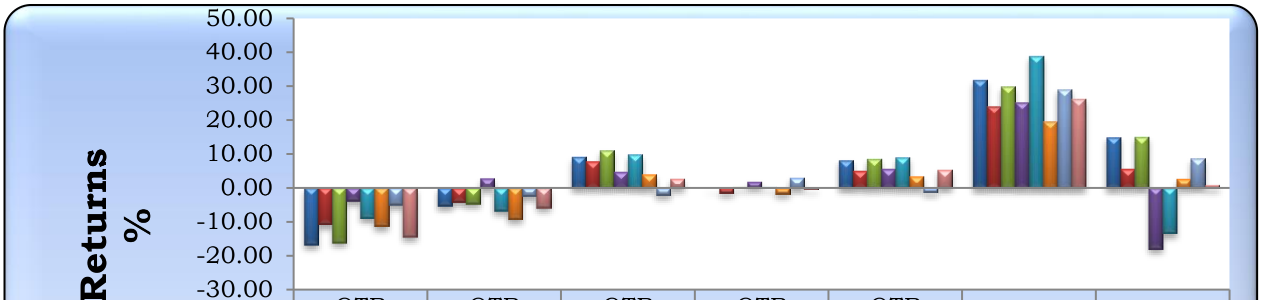
SECTION 2 – CAPITAL AND MONEY MARKET REVIEW

The selloff in global equity and fixed income markets intensified over the three months to June amid greater monetary policy risks, as most major developed central banks accelerated efforts to combat persistently high inflation despite the slower growth outlook. Uncertainties from the ongoing Russia-Ukraine war and headwinds from China's zero-tolerance approach to COVID heightened recession fears and further detracted from sentiment. Market volatility remained elevated against this backdrop. The US Chicago Board Options Exchange Volatility Index (VIX) averaged 27.33 points for the quarter when compared to an average of 25.31 points during the prior three months. The European measure of investor anxiety, the Euro Stoxx 50 Volatility Index (VSTOXX) edged modestly lower by 0.69 points to average 28.71 points for the quarter. US equities tumbled lower as the Fed's forceful move towards a restrictive monetary policy stance and signs of slowing economic growth sparked recession fears. The US Standard and Poor's (S&P) 500 index declined by 16.11 per cent over the quarter and was down 20.58 per cent for the first six months of the year. All sectors detracted with consumer discretionary and technology stocks incurring the largest losses while defensive sectors such as utilities and consumer staples performed relatively better.

Non-US developed stock markets, as represented by the MSCI EAFE index, fell 14.34 per cent, when measured in US dollars (see Figure 1). Exposure to local currencies hindered performance as the US dollar continued to appreciate over the quarter. UK equities outperformed other major gauges with the FTSE 100 index losing a modest 3.80 per cent due to its relatively larger weighting to the commodity sector. Meanwhile, other European markets faced steep declines amid expectations for the ECB to begin hiking rates in July. Weaker economic data and an energy crisis stemming from the region's relatively higher dependency on Russian oil and gas exacerbated recession fears. Germany's DAX index and France's CAC 40 index dropped by 11.31 per cent and 8.92

per cent, respectively. In Asia, Japan's Nikkei 225 index held up relatively better with a loss of 5.02 per cent supported in part by a weaker yen and the easing of Covid-19 restrictions in China.

Figure 1
Total Returns on Equity Indices
/Per cent/

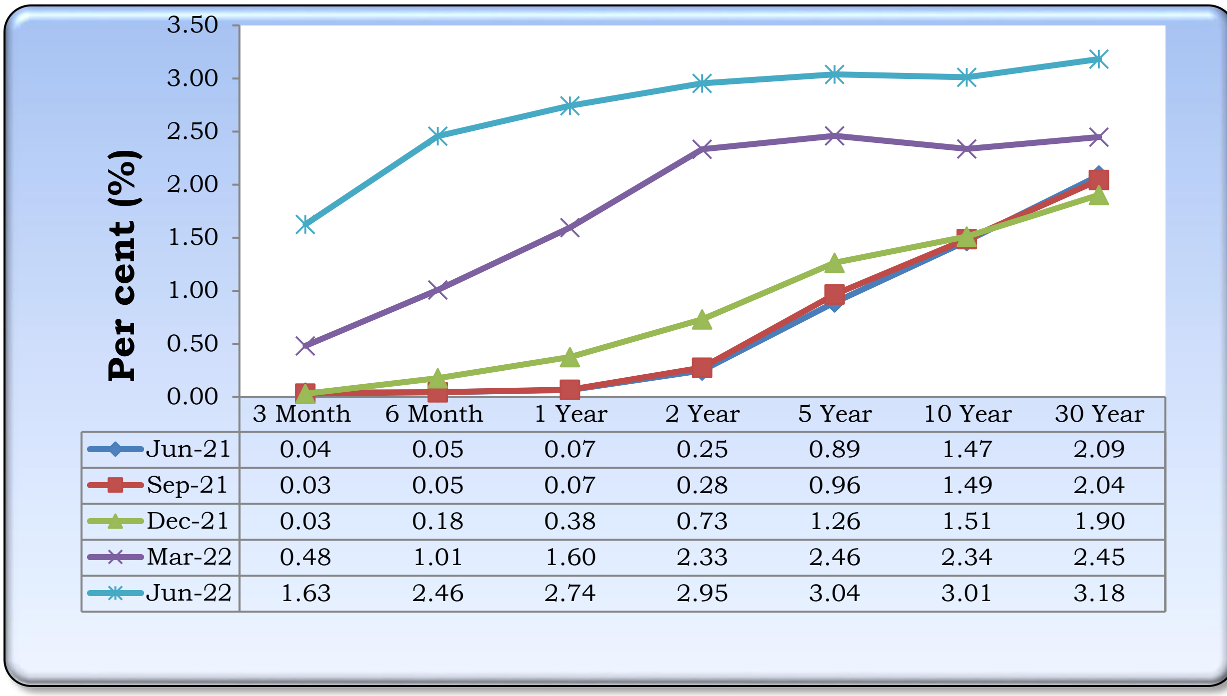


	QTR Ended Jun-22	QTR Ended Mar-22	QTR Ended Dec-21	QTR Ended Sep-21	QTR Ended Jun-21	FY 20/21	FY 19/20
Russell 3000	-16.71	-5.28	9.27	-0.10	8.24	31.86	14.99
Dow Jones	-10.78	-4.10	7.87	-1.46	5.08	24.15	5.70
S&P 500	-16.11	-4.60	11.02	0.58	8.55	29.99	15.13
FTSE 100 - UK	-3.80	2.89	4.75	1.94	5.63	25.31	-17.96
CAC 40 - France	-8.92	-6.68	9.86	0.44	9.07	38.96	-13.41
DAX 30 - Germany	-11.31	-9.25	4.09	-1.74	3.48	19.59	2.68
Nikkei 225 - Japan	-5.02	-2.42	-2.10	3.02	-1.23	29.14	8.69
MSCI EAFE	-14.34	-5.77	2.72	-0.34	5.34	26.27	0.95

Source: Bloomberg

In the US fixed income market, US treasury yields climbed even higher over the quarter with the Fed's larger-than-expected rate hikes and its move to a restrictive monetary policy stance. As a result, the 2-year yield moved sharply higher by 62 basis points to end at 2.95 per cent. Meanwhile, the 10-year yield added 67 basis points to close the quarter at 3.04 per cent. Brief periods of yield curve inversion between the 2-year to 10-year segment fuelled speculation around an impending recession given similar events have preceded downturns in the past.

Figure 2
US Treasury Curve
/Per Cent/

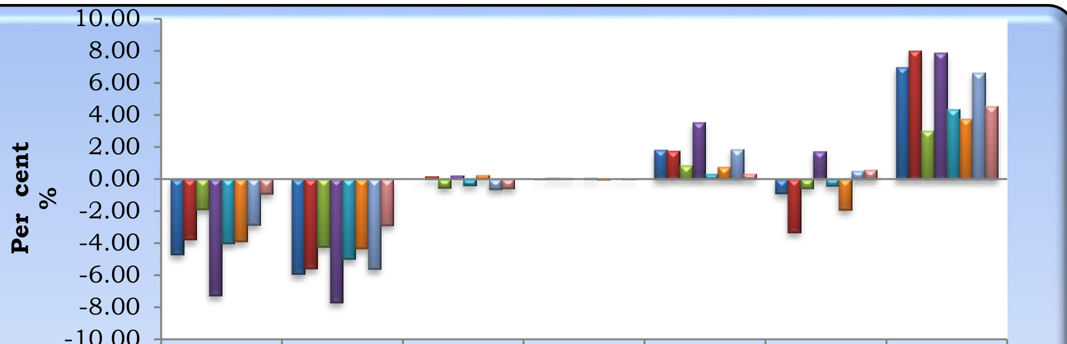


	3 Month	6 Month	1 Year	2 Year	5 Year	10 Year	30 Year
Jun-21	0.04	0.05	0.07	0.25	0.89	1.47	2.09
Sep-21	0.03	0.05	0.07	0.28	0.96	1.49	2.04
Dec-21	0.03	0.18	0.38	0.73	1.26	1.51	1.90
Mar-22	0.48	1.01	1.60	2.33	2.46	2.34	2.45
Jun-22	1.63	2.46	2.74	2.95	3.04	3.01	3.18

Source: Bloomberg

The broader US fixed income market, as represented by the Bloomberg Barclays US Aggregate Bond Index, extended losses from the prior quarter, falling an additional 4.69 per cent in the three months to June (see Figure 3). The steeper path of interest rate hikes along with wider credit spreads pushed bond prices lower. At the sub-sector level, US Corporate Bonds declined by 7.26 per cent due to its relatively longer duration profile and greater sensitivity to the economic cycle. In the securitised sector, Mortgage Backed Securities (MBS) retreated 4.01 per cent as the Fed sought to reduce its balance sheet holdings, while Asset Backed Securities lost a modest 0.91 per cent given its lower interest rate risk.

Figure 3
Returns on Fixed Income Indices
/Per Cent/

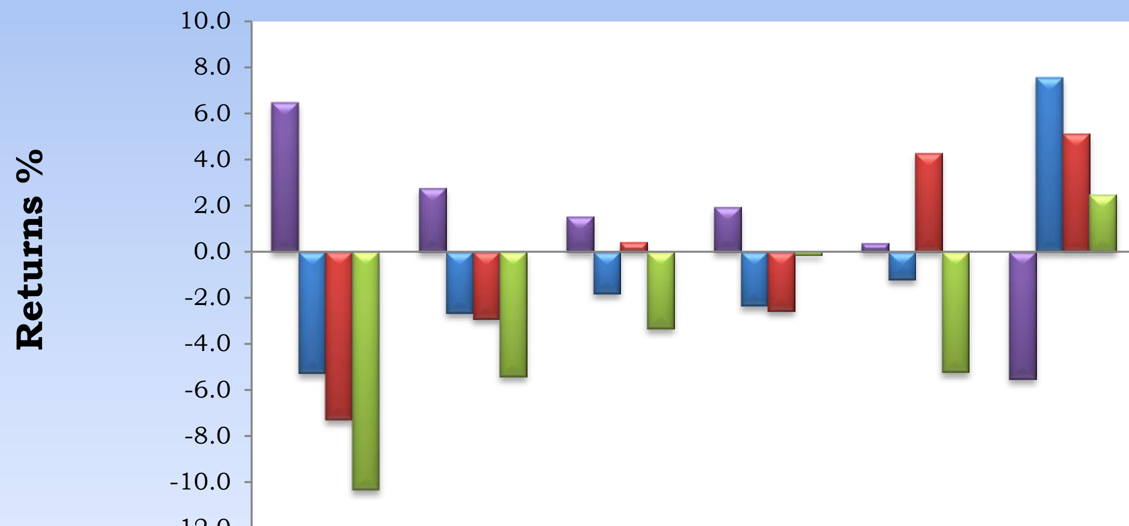


	QTR Ended Jun-22	QTR Ended Mar-22	QTR Ended Dec-21	QTR Ended Sep-21	QTR Ended Jun-21	FY 20/21	FY 19/20
Barclays US Aggregate	-4.69	-5.93	0.01	0.05	1.83	-0.90	6.98
US Treasury	-3.77	-5.58	0.18	0.09	1.75	-3.30	8.04
Agencies	-1.89	-4.24	-0.53	0.08	0.86	-0.56	3.02
US Corporate	-7.26	-7.69	0.23	0.00	3.55	1.74	7.90
US MBS	-4.01	-4.97	-0.37	0.10	0.33	-0.43	4.36
G7 Bonds (Hedged)	-3.87	-4.33	0.26	-0.04	0.78	-1.92	3.77
US CMBS	-2.85	-5.59	-0.64	-0.03	1.87	0.52	6.63
US ABS	-0.91	-2.88	-0.57	0.05	0.34	0.59	4.55

Source: Bloomberg

The US dollar surged higher amid expectations for relatively more aggressive rate hikes in US when compared to its peers. Meanwhile safe-haven flows stemming from global recession fears further strengthened the currency and drove the Dollar Spot Index (DXY) to appreciate by 6.48 per cent. The Japanese Yen hovered at record lows and depreciated by 10.34 per cent against the dollar given the widening policy divergence between the BOJ and the Fed. Similarly, the Euro and British Pound weakened 5.27 per cent and 7.31 per cent when compared against the US dollar. The added uncertainty from the Russia-Ukraine war on energy supplies and heightened political risks in the region also contributed to the move lower.

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



	QTR Ended Jun-22	QTR Ended Mar-22	QTR Ended Dec-21	QTR Ended Sep-21	FY 20/21	FY 19/20
DXY CURNCY	6.48	2.76	1.53	1.94	0.37	-5.53
EURUSD CURNCY	-5.27	-2.66	-1.81	-2.34	-1.20	7.54
GBPUSD CURNCY	-7.31	-2.91	0.43	-2.58	4.29	5.13
JPYUSD CURNCY	-10.34	-5.41	-3.34	-0.14	-5.23	2.49

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 June 2022 and the previous three (3) quarters.

During the three months ending June 2022, fluctuations in the market values of the HSF's assets drove modest changes in the mandate weights. As at the end of the quarter, the HSF maintained its overall underweight allocation to fixed income securities and corresponding overweight to equities. At the mandate level, the US Core Fixed Income mandate held the largest underweight position of 7.24 per cent, while the US Core

Domestic Equity mandate had the largest overweight position of 6.57 per cent (see Table 3).

Table 3
Portfolio Composition relative to the Approved SAA[2]
/per cent/

Portfolio Weights	Asset Class	Target Weight SAA	Sep-21 Actual % of Fund	Dec-21 Actual % of Fund	Mar-22 Actual % of Fund	Jun-22 Actual % of Fund
	US Short Duration Fixed Income	25.00	18.69	18.05	18.63	20.54
	US Core Domestic Fixed Income	40.00	32.15	31.25	31.10	32.76
	US Core Domestic Equity	17.50	24.55	26.21	26.08	24.07
	Non-US Core International Equity	17.50	24.60	24.49	24.20	22.63

Totals may not sum to 100 due to rounding.

At its meeting in July, the Board reviewed the asset class composition of the Fund in light of increased volatility and high uncertain market outlook. The Board noted that global monetary rates were likely to move even higher in the short term in order to contain the 40-year high inflation rates in key markets. Further, higher monetary rates and escalating geopolitical tensions would adversely impact global growth, with Europe the hardest hit. Both equity and fixed income markets were likely to continue to be volatile in short term but markets in United States were expected to fare better than elsewhere. The Board concluded a re-balancing of the HSF was needed in order to improve the risk-return performance and/ or preserve the capital of the Fund over the

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

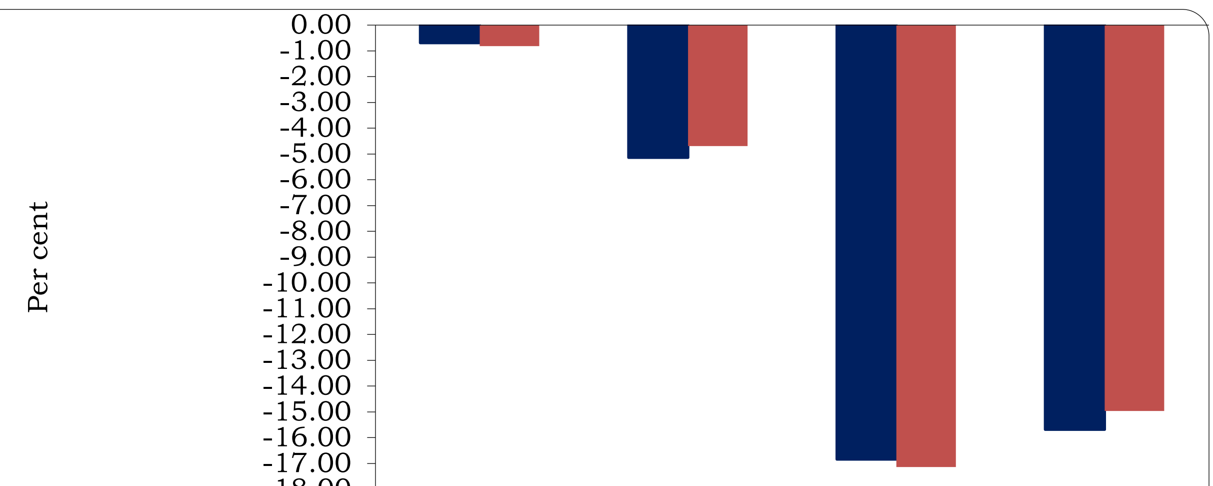
short-term. The Board approved a re-balancing programme which when executed would have the overall effect on the Fund of: increasing its low risk fixed income holdings; reducing its higher risk equity investments (in particular non-US exposure); and adjusting its asset class weights to be closer to the approved SAA. In early August, the Bank successfully executed the Board's approved re-balancing programme.

The total net asset value of the Fund as at the end of June 2022 was **US$4,771.5 million**, compared to US$5,299.5 million at the end of the previous quarter. Of this total, the Investment Portfolio was valued at US$4,769.2 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.

Performance of the Investment Portfolio

During the second fiscal quarter of 2022, the HSF's Investment Portfolio returned -9.91 per cent due to negative performance across both the fixed income and equity mandates (see Figure 5).

Figure 5
Absolute Returns by Mandate
For the period Apr – Jun 2022
/per cent/



	US Short Duration	US Core Fixed Income	US Core Domestic Equities	Non US Core International Equities
Composite Portfolio Return	-0.69	-5.14	-16.84	-15.68
SAA Benchmark Return	-0.81	-4.69	-17.13	-14.96

When compared with its SAA benchmark[3], which declined by 7.81 per cent, the HSF underperformed by 2.09 per cent. The main driver of negative excess returns was the Fund's overweight allocation to equities and corresponding underweight to fixed income relative to its SAA benchmark. In aggregate, external managers' strategies modestly detracted. Positive performance by asset managers in the US Core Domestic Equity and US Short Duration mandates helped to partially offset negative relative returns in the Non-US Core International Equity and US Core Domestic Fixed Income mandates.

The **US Core Domestic Equity** mandate fell by 16.84 per cent and outperformed its benchmark, the Russell 3000 ex Energy index, by 29 basis points over the quarter (see Figure 5). Positive stock selection decisions contributed to the relatively lower losses. Positioning within the consumer staples and healthcare sectors added to returns. The net asset value of the mandate ended June 2022 at **US$1,147.9 million**, down from US$1,381.2 million at the end of the prior quarter.

The **Non-US Core International Equity** mandate lost 15.68 per cent over the quarter ending June 2022. This compares to a decline of 14.96 per cent for its benchmark, the MSCI EAFE ex Energy index. Negative stock decisions in Europe and Asia Pacific regions mainly detracted from relative returns while overall country allocations were incrementally positive. During the quarter, the mandate's net asset value decreased by $202.4 million to **US$1,079.3 million** as at the end of June 2022.

The **US Short Duration Fixed Income** mandate returned -0.69 per cent over the third quarter of the financial year. The mandate outperformed the benchmark, Bank of America Merrill Lynch US Treasury 1-5 year index, by 12 basis points. Positive excess returns were driven by the portfolio's short duration positioning relative to the benchmark, while exposure to high quality credit sectors modestly detracted as spreads widened over the period. The net asset value of the mandate as at June 30, 2022 was **US$979.7 million** compared to US$986.8 million three months earlier.

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[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%).

The longer duration **US Core Domestic Fixed Income** mandate fell by 5.14 per cent while the benchmark, the Bloomberg Barclays US Aggregate Bond index, declined by 4.69 per cent. This underperformance of 45 basis points resulted from overweight exposure to the investment grade credit sectors. In particular, excess allocations to investment grade corporate bonds detracted as investors became more risk averse, leading to substantial spread widening. The net asset value of the mandate ended June 2022 at **US$1,562.2 million**, down from US$1,647.4 million at the end of the prior quarter.

SECTION 4 – COMPLIANCE AND PORTFOLIO RISKS

Compliance

At the end of the quarter, one asset manager within the Non-US Core International Equity mandate continued to stand 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, market valuation movements resulted in lower deviations of the mandate weights from the approved SAA. As at June 30, 2022, three mandates continued to exceed the allowable +/- 5 per cent deviation (see Table 3). Based on the HSF Board's assessment, a decision was taken to defer the rebalancing of the Fund until a further examination is conducted at the quarter ending June 30, 2022. To support the review of its decision, the Board requested the Central Bank continue to provide monthly updates on the Fund's performance, asset class exposures as well as market outlook.

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 June 30, 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 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. In addition, concentration risk is 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 June 30, 2022.

Table 5
Weighted Average Duration
/Years/

Mandate	Portfolio	Benchmark
US Short Duration	**2.38**	**2.58**
US Core Domestic Fixed Income	**6.58**	**6.44**

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 which are 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, which are 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 June 2022, the currency exposure for this portfolio was 99 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

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)
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	-

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				
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	-

Appendix III

Summary Characteristics of Composite Benchmarks

Fixed Income Benchmarks

Key Characteristics	Bloomberg Barclays US Aggregate Index	Merrill Lynch 1-5 Index
Total Holdings	12,583	154
Coupon (%)	2.49	1.50
Duration (Years)	6.44	2.58
Average Life (Years)	8.63	2.69
Yield to Maturity (%)	3.72	2.98
Option Adjusted Spread (bps)	55	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	2,865	771
Earnings Per Share (EPS Growth 3-5yr fwd.)	13.2	9.0
Price Earnings (P/E fwd.)	16.9	12.7
Price / Book (P/B)	3.3	1.6
Weighted Average Market Capitalisation* (Bn)	424.1	75.8

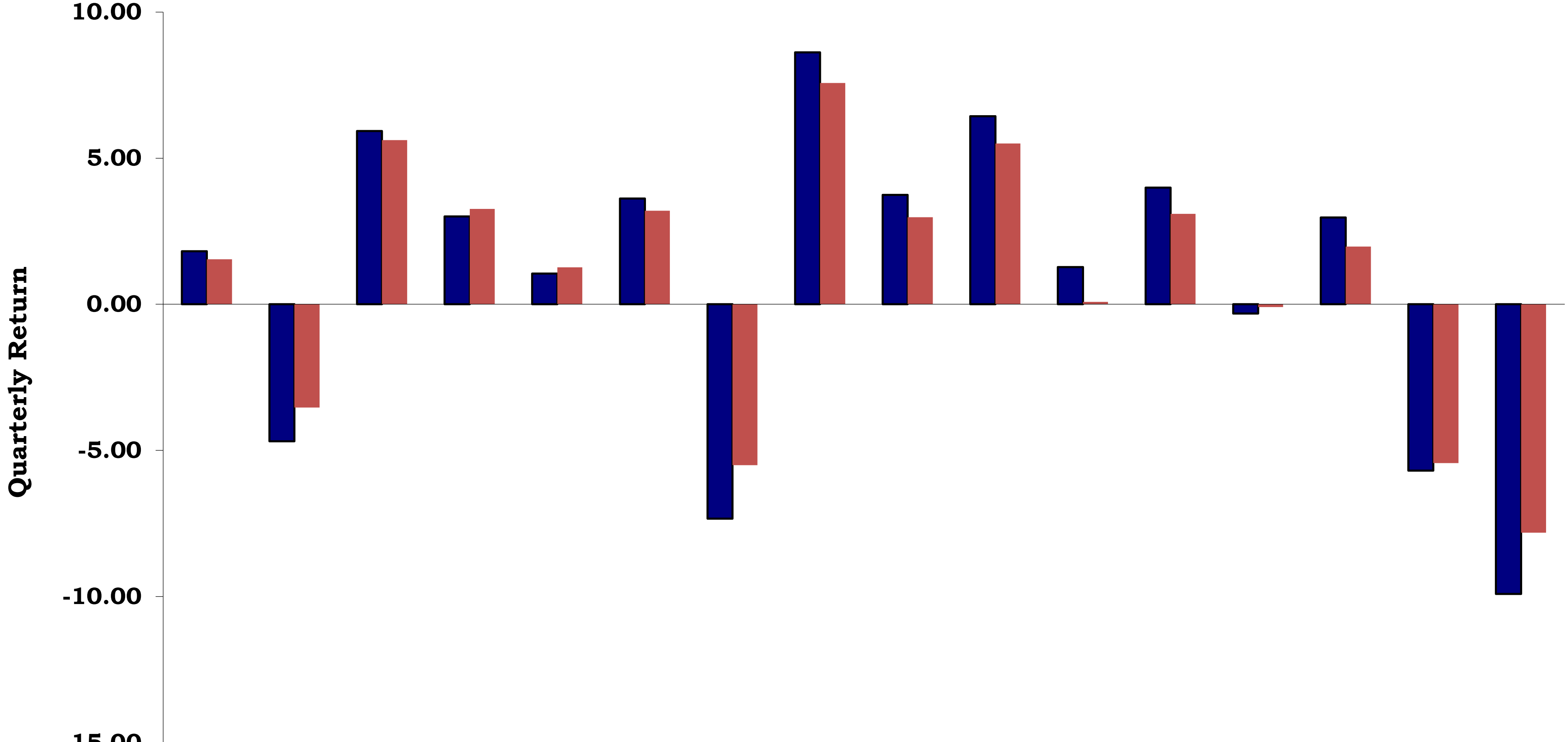
*Market capitalisation is a measurement of the size of a company (share price x the number of outstanding shares). The weighted average market capitalisation of a stock market index represents the average size of the firms comprising the index where each is weighted according to its market capitalisation.

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

	Jun -21	**Sep-21**	**Dec-21**	**Mar-22**	**Jun-22**
Total Fund Value	**5,583.2**	**5,463.9**	**5,623.2**	**5,299.5**	**4,771.5**
Total Value of Equity	**2,707**	**2,685**	**2,850**	**2,663**	**2,227**
US Core Domestic Equity	1,340	1,341	1,474	1,381	1,148
Non-US Core International Equity	1,367	1,344	1,377	1,282	1,079
Total Value of Fixed Income	**2,875**	**2,778**	**2,772**	**2,634**	**2,542**
US Short Duration Fixed Income	1,020	1,021	1,015	987	980
US Core Domestic Fixed Income	1,855	1,757	1,757	1,647	1,562
Total Value of Cash or Cash Equivalents	**1**	**1**	**1**	**2**	**2**

NB: Differences in totals are due to rounding.

Appendix V
HSF Portfolio and SAA Benchmark Quarterly Returns
/per cent/



	FY2018 Q4	FY2019 Q1	FY2019 Q2	FY2019 Q3	FY2019 Q4	FY2020 Q1	FY2020 Q2	FY2020 Q3	FY2020 Q4	FY2021 Q1	FY2021 Q2	FY2021 Q3	FY2021 Q4	FY2022 Q1	FY2022 Q2	FY2022 Q3
HSF Portfolio	1.81	-4.69	5.93	3.01	1.05	3.62	-7.33	8.62	3.74	6.43	1.28	4.00	-0.31	2.97	-5.69	-9.91
Benchmark	1.54	-3.54	5.61	3.26	1.27	3.20	-5.51	7.57	2.98	5.50	0.08	3.09	-0.09	1.98	-5.44	-7.81