Internship Report On

Comparative Performance and Market Sensitivity Analysis of The Funds of UCB Asset Management Limited

By

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Student ID: 22104012

An internship report submitted to the BRAC Business School in partial fulfillment of the requirements for the degree of
Bachelor of Business Administration

BRAC Business School
Brac University
Spring 2026

Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

Student's Full Name & Signature:

Washi Anan
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Supervisor's Full Name & Signature:

Abu Saad Md. Masnun Al Mahi, PhD
Associate Professor
BRAC Business School
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Letter of Transmittal

Abu Saad Md. Masnun Al Mahi, PhD
Associate Professor
BRAC Business School
BRAC University
66 Mohakhali, Dhaka-1212

Subject: Submission of Internship Report on "*Comparative Performance and Market Sensitivity Analysis of the Funds of UCB Asset Management Limited.*"

Dear Sir,

It is my pleasure to submit my internship report as I am serving as a Business Development Intern at UCB Asset Management Limited which has provided me the opportunity to conduct this study under your kind supervision. This aims to evaluate and compare the performance of the three Mutual Funds of UCB Asset Management.

I have attempted my best to finish the report with the essential data and recommended proposition in as significant a compact and comprehensive manner as possible.

I hope this report will meet your expectations.

Sincerely yours,

____
Name: Washi Anan
Student ID: 22104012
BRAC Business School
BRAC University
Spring, 2026

Non-Disclosure Agreement

This agreement is made and entered into by and between UCB Asset Management Limited and the undersigned student at Brac University who signed this agreement are responsible for keeping the company's private data safe and preventing it from being shared.

Name: Washi Anan
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Spring, 2026

Acknowledgement

First and foremost, I would like to express my sincere gratitude to Abu Saad Md. Masnun Al Mahi, PhD, Associate Professor, for always providing his invaluable guidance, consideration, and continuous support throughout the preparation of this report.

I am also thankful to the management of UCB Asset Management Limited for giving me the opportunity to work as a Business Development Intern and for providing me with the support required to complete this internship.

Finally, and most importantly, I am always grateful to my family and friends for their constant moral support throughout this journey.

Executive Summary

The relative performance and market sensitivity of three open-ended funds managed by UCB Asset Management Limited are discussed UCB AML First Mutual Fund, Taqwa Growth Fund, and Income Plus Fund. The method of calculating monthly returns is based on daily NAV data and the analysis is explained through descriptive statistics, correlation, and regression analysis. Equity funds are compared with DSEX index and the income fund is compared with the changes in the rate of 91-day Treasury Bill. Results indicate that AML is highly market sensitive with a Beta of 0.695 whereas TGF is moderately sensitive with a Beta of 0.186. Income Plus Fund is negatively correlated with changes in the rate of T-Bills with Beta of -1.591. The findings offer empirical data to aid in investor decision making and fund communication strategies of the UCB Asset Management Limited.

Keywords: Performance of mutual funds; Market sensitivity; DSEX; Interest rate sensitivity; Open-ended funds; UCB Asset Management Limited.

Table of Contents

List of Tables

List of Figures

List of Acronyms

UCB	United Commercial Bank
UCBAML	UCB Asset Management Limited
IPF	Income Plus Fund
AML	AML First Mutual Fund
TGF	Taqwa Growth Fund
KPI	Key Performance Indicator
DSEX	Dhaka Stock Exchange Broad Index
SIP	Systematic Investment Plan
BSEC	Bangladesh Securities and Exchange Commission

Glossary

AML	An equity based open-ended mutual fund that is managed by UCB Asset Management Limited.
Beta	An indicator of how sensitive a fund is to market movements. A Beta of 1 implies that the fund moves in the same direction as the market
UCBAML	The asset management company and the focus of this research.
BSEC	The regulator that oversees capital markets in Bangladesh.
Correlation	A statistical measure of the direction and the strength of the relationship between two variables and it is a measure between -1 and +1.
DSEX	The main benchmark index of the Dhaka Stock Exchange.
FDR	A savings product provided by banks with a fixed interest rate.
IPF	A fixed income based open-ended fund that is managed by UCB Asset Management Limited.
KPI	A quantifiable value that is utilized to measure the performance against the target.
Mark-to-Market	An accounting system that requires the valuation of the assets at their current market value and not their historical value.
Modern Portfolio Theory	A theory of how to put together a portfolio to maximize the payoff given a certain amount of risk taken.
NAV	Per unit market value of a mutual fund that is computed each day.
R^2	Coefficient of Determination; this is used to find out the percentage of the variance that the independent variable can explain in the dependent variable.
Regression	A statistical approach that is applied to test the association between a dependent variable and one or more independent variables.
SIP	A type of investing a certain sum of money in a mutual fund on a regular basis.
Non SIP	A type of investing a lump sum of money in a mutual fund on a one-time basis.
T-Bill	Short term government debt issue issued by Bangladesh Bank.
TGF	Shariah compliant equity based open ended fund that is managed by UCB Asset Management limited.
Open-ended Fund	An open-ended fund is a category of mutual fund which does not have a predetermined number of units and investors to buy or redeem units directly out of the fund at any given time at the current NAV.

Chapter 1: Overview of Internship

1.1 Student Information

Name: Washi Anan

ID: 22104012

Program: Bachelor of Business Administration (BBA)

Major: Finance

Minor: MIS

1.2 Internship Information

1.2.1 Period, Company, Department, Address:

I got the opportunity to complete my academic internship at UCB Asset Management Limited. I have completed my 3 months internship journey from 18th January to 18th April, 2026. My department was the Business Development Department and the address is at Plot-CWS-(A)-1, Road No, Bulus Center, 34 Gulshan Ave, Dhaka 1212.

1.2.2 Supervisor Information:

My supervisor is S M Samiuzzaman, CFA. He is the Senior Portfolio Manager of UCB Asset Management Limited.

1.2.3 Job Score:

As a part of the internship experience at UCB Asset Management, I was participating in operational and business development tasks on a daily basis. My main duties involved helping in the communication with the clients, through the provision of information about mutual funds products and responding to simple inquiries. I helped the team to follow up with potential investors and keep track of client interactions.

I also assisted in preparing and updating client leads, investment tracking, and general business development reports. I as well as aligned the internal teams to facilitate a smooth flow of work and on time completion of tasks. These activities helped me get a first-hand experience in the field of financial products, dealing with clients, and running an organization in the asset management sector.

1.3 Internship Outcome

1.3.1 My Contribution to the Company:

My internship experience at UCB Asset Management has been a period where I worked in various functional areas such as business development, investment support, branding, and compliance. My main task was to help clients by presenting mutual fund products and assisting potential investors in the first stages of investing.

I was involved in the process of managing the leads by following up with potential clients and keeping current records of the communication with them. This enhanced the effectiveness of tracking and contacting the clients. I also assisted in the preparation of reports concerning the investor information and business development processes.

In cooperation with the Investment team, I helped with communication materials, such as speech content and helped analyze what kind of investors best fit certain mutual fund products. I was attached to the Brands team to propose and research new ways to enhance engagement.

In addition, I assisted the Operations and support team by certifying investor information forms by confirming that all the necessary documents were duly filled out and sent.

These contributions provided me with practical exposure to financial products, cross-functional teamwork, client handling, and compliance process. And as well as improving my analytical and communication skills.

1.3.2 Benefit of the Internship:

Through my internship, I acquired a practical knowledge of the real world operation of mutual funds, particularly the concept of NAV, SIP, Non SIP and investor behavior. I got to know the operation of asset management firms and how various departments would liaise to handle investments and customers. Another thing I learnt was to be able to explain financial products in straightforward language to non-financial clients. Also, I became more confident about responding to a query by clients and addressing their concerns professionally.

1.3.3 Problems and Difficulties:

The first challenge that I encountered was the gap between theoretical and practical use, particularly in knowing how mutual funds are packaged to clients. The regulatory framework of BSEC and the way in which it regulates the functioning of funds was a foreign concept that would first need further self-research. It was also not easy to persuade skeptical clients on investment products as most of them had trust problems or were not very aware of financial products. Moreover, it was time to adapt to a working corporate setting and cope with the tasks within deadlines. This being my first job was a great eye opener and a lesson that humbled me as I now appreciate jobholders much more.

1.3.4 Recommendation to the Company:

The internship program could have a more organized onboarding and training session at the start. A description of what the interns are signing up for and giving them with the proper material may help foster their comprehension further. Exposing interns to different departments would assist them to have a greater perspective of the organization. It would also be beneficial to offer interns an identified project or research task early in the process. This would make the learning process more organized and help them to add more value to the organization.

Chapter 2: Organization Part

The chapter is an organizational analysis of UCB Asset Management Limited (UCBAML), the company where the internship was undertaken. The analysis discusses different facets of the organization such as its background and structure, management and marketing practices, financial performance, operations and positioning in the industry. This chapter aims to assess and critically analyze the operations of UCBAML as an organization and the way its internal operations can be attributed to its overall performance in the Bangladesh asset management business.

2.1 Introduction

This chapter is restricted to the company of UCB Asset Management Limited. It lacks a comparative study of other asset management firms that are in operation in Bangladesh. The areas addressed are the company background, leadership and human resource management, marketing and customer acquisition strategy, financial performance as per available fund statements, operational procedure and competitiveness in the industry using Porter's Five Forces and SWOT analysis.

The data in this chapter was collected in a variety of ways. Direct observation and participation during the internship period at UCBAML were the main sources of primary information. Communication with members of the team in various departments and senior management provided first hand experience of the culture, procedures and practices of the company. The secondary information was obtained through the official site of the company, quarterly financial reports of three funds operated by UCBAML, and regulatory information that was publicly available in Bangladesh Securities and Exchange Commission.

Although there are some certain limitations as UCBAML does not publish annual reports and financial data for accessibility. Thus, not everything in this chapter is an observation-based study, especially on HR practices and financial performance, which are not accompanied by extensive company-level disclosures. Though limited, the information obtained forms a valuable source of organizational analysis.

2.2 Overview of UCB Asset Management Limited

UCB Asset Management Limited (UCBAML) is a non-bank financial institution that started its operations in 2020 and is a subsidiary of UCB Bank PLC. The business has its registered office at Bulus Center, Plot CWS-(A)-1, Road No. 34, Gulshan Avenue, Dhaka 1212. UCBAML is a registered asset management company that is licensed and regulated by the Bangladesh Securities and Exchange Commission (BSEC), which oversees all fund management activities in Bangladesh such as fund registration, disclosure of the NAV and protection of investors.

The UCBAML has three funds that suit various investor profiles and risk-taking. UCB AML First Mutual Fund is an equity-based fund that invests mainly in blue-chip listed companies on the Dhaka Stock Exchange which have sound fundamentals. It provides investors with a portfolio that has the professional management of seasoned fund managers. Taqwa Growth Fund is a Shariah-compliant equity fund, which is governed by the concepts of Islamic finance, and it is limited to investing in companies which pass the screening of halal standards. This fund is meant to cater to investors who want to be involved in the equity market but at the same time follow the religious rules of investment. Lastly, Income Plus Fund is a fixed income based fund that invests in government treasury bills and bonds as the main investment choices with the aim of attracting investors who prefer predictable returns that are not as volatile as those found in the equity market.

UCBAML has an estimated BDT 3.5 billion assets under management through its three funds and BDT 8 billion under discretion. There are Separately Managed Accounts too which shows that the company has a strong presence in institutional portfolio management outside its publicly offered funds. Although UCBAML is a relatively young company, having existed since 2020, it has been expanding its operations steadily due to the leadership of its Managing Director, Sheikh Mohammad Rashedul Hasan, and enjoys the advantages of a robust institutional support and distribution network of its parent company, UCB Bank PLC.

The company has a lean team of around 20 professionals to manage the fund, business development, compliance, and operations. The relatively direct communication between the management and the staff and the close coordination across the departments is made possible by this focused team structure. UCBAML is not listed on a stock exchange and is a private subsidiary of UCB Bank PLC. It has an obligation to report to BSEC regarding its regulatory affairs and this has taken a degree of transparency and accountability in its fund activities such as the daily publication of the NAV of all its three funds on the website of the company.

Although UCBAML does not post a formal standalone mission and vision statement on its web site, the philosophy of operation is reflected in its pledge to protect and increase the wealth of investors by using well-researched and diversified investment strategies. The company is dedicated to becoming a reliable investment management partner to both retail and institutional clients. By providing both conventional and Shariah-compliant solutions to the varied requirements of the increasing number of investor clients in Bangladesh.

2.3 Management Practice

2.3.1 Leadership Style

As per the observation made within the time of internship, UCB Asset Management Limited has a leadership style that can be termed as collaborative though formal. The organization does not make decisions unilaterally and singly by an individual on the top. Rather, the team members deliberate on issues and give their input before final decisions are made. This is indicative of a democratic style of leadership, whereby employees are allowed a say in decision making process. Meanwhile, there is a distinct chain of command in the organization. The Managing Director is the most authoritative figure and he conducts company-wide meetings periodically to discuss performance, strategy, and organization. Primarily, supervisors check in with their team members on a regular basis, once a week, and make sure that the work is tracked and directions are given regularly. Such a mix of team discussion and hierarchical management implies that UCBAML has a participative style of leadership. This involves the participation of employees but still implies clear lines of authority and responsibility.

This leadership style is quite appropriate to a small organization with about 20 professionals. Open communication and cross-functional coordination are the key to smooth operation in a lean environment where there is a team. The relatively flat internal culture, in spite of the formal hierarchy on the paper, is shown by the fact that interns could reach the senior management directly and communicate with the staff members working in all departments. Such an atmosphere which is considered as the transformational type of leadership tendencies in which leaders interact with their staff and do not just use authority (Bass and Avolio, 1994).

2.3.2 Human Resource Management

UCBAML has a selective and conservative recruitment strategy. Throughout my internship, the company did not actively pursue an increase in headcount. Following the internship batch, the investment team has just two other interns recruited on a case-by-case basis indicating that the process of hiring is not expansionary but rather need-based. The process of recruitment is formal in terms of application and referral, which is in line with the general practice in the financial services sector in Bangladesh. The main source of recruitment and professional networks are probably used on campus considering the size of the company and its specialization.

UCBAML has a structured and sequential onboarding and training process. Interns were given two to three weeks of orientation and knowledge transfer by the line manager who was a Relationship Officer in addition to the HR team and former interns when they joined the company. This was accompanied by a formal evaluation to check out what was learnt in the course of training. Upon passing the test, the interns were rotated around various departments weekly to expose them to the Investment Team, Branding and Communication Team, and Operations and Support Team. Later allocated to their respective core departmental duties. This formalized process of onboarding shows a conscious attempt to guarantee that new recruits get to learn about the basics of organization before they begin to focus.

UCBAML has a monthly KPI system that measures the employees in terms of performance management. The number of clients onboarded and Assets Under Management contributed by each team member in the month are key metrics being followed. At the end of the month, the Managing Director reviews these which establishes personal responsibility and direct senior leadership control. The Business Development team is one of the areas where this performance appraisal structure is especially applicable. Here the main success indicators are client acquisition and AUM growth. Although the targets were not officially announced in writing, there was an implicit performance expectation based on monthly performance that informed the team members including interns. The compensation information was not shared in the internship, and the KPI-based review system indicates that performance-based rewards are probably included in the overall compensation system, which is a common practice at asset management companies.

2.4 Marketing Practices

UCB Asset Management Limited is a niche financial services market where mass marketing is not as effective as focused and relationship-based marketing. The marketing approach of the company is thus based on personal communication with clients, institutional referral and online presence as opposed to widespread advertising campaigns.

UCBAML's target market is varied which includes both individual and institutional investors. Retail-wise, the company aims at people of varying income levels and ages; young working professionals venturing into the investment arena to high net worth people looking to diversify their portfolio. Institutionally, the company also targets the corporate clients who might be interested in investing surplus funds in the managed investment vehicles. This generalized targeting strategy is an indication of mutual fund products which could be designed to accommodate both conservative and aggressive types of investors by providing three different types of funds namely AML First Mutual Fund to the equity oriented investor, Taqwa Growth Fund to the Shariah oriented investor and Income Plus Fund to the risk averse investor who needs a stable yield.

The main distribution channel of UCBAML is the branch network of its parent company, UCB Bank PLC. The UCB Bank branches are active in referring potential investors to

UCBAML and this referral system is motivated by a commission system whereby branch staff are rewarded by successful conversion of clients. This system provides UCBAML with an established and trusted customer base without having to employ a huge independent sales team. In addition to the bank referral channel, the Business Development team makes direct outreach to potential investors by making calls. The main assignment in the internship was to make client calls in order to introduce the fund products of UCBAML. Brochures and information materials about products were exchanged when clients showed interest to facilitate the decision making process. When a client chose to invest, the team then helped them with the onboarding and unit allocation procedure.

During the client acquisition activities, the fund that was mostly marketed was Income Plus Fund. This was a strategic decision that was based on the existing investor sentiment in Bangladesh. The biggest issues that potential clients raised over the phone were fear of fraud, safety of their capital, and fear of the fund defaulting. These fears are representative of a larger trust gap that has been experienced within the retail investment market in Bangladesh where the knowledge of regulated mutual funds is low and the distrust of financial products is high. The IPF offers the fixed income aspect, the portfolio of government-supported securities, and the comparatively stable NAV. Within this context it was the most convincing product among the reluctant first-time buyers. The introduction of IPF as a safe and controlled substitute to bank deposits became one of the key components of the communication strategy to the clients.

Regarding promotional materials and online presence, UCBAML relies on brochures and social media content as its main marketing tools. In client acquisition process, brochures were utilized to disseminate easy to understand information about fund features and investment procedures. The presence was ensured through social media posts and updates on the funds were communicated to a wider audience. Although the digital marketing presence of the company is operational, it is somewhat small in comparison to the larger financial institutions, which is a sphere with high growth potential due to the growing popularity of digital channels among younger investors in Bangladesh.

One of the significant marketing strengths of UCBAML is its product differentiation strategy. The company can cater to the requirements of a broader set of investors by providing a conventional equity fund, a Shariah-compliant equity fund and a fixed income fund at the same platform. Such a product offering variance also enables the Business Development team to shape their pitch to the needs and risk profile of each potential client versus a one-size-fits-all approach. This is especially appropriate in a market where investor profiles are very heterogeneous regarding financial literacy, risk appetite and religious factors.

2.5 Financial and Accounting Practices

UCB Asset Management Limited does not issue a separate company level annual report, so the financial performance analysis in this section is conducted using annual audited financial statements of all three funds under management of the company; UCB AML First Mutual Fund (2021), Taqwa Growth Fund (2022), and Income Plus Fund (2023). Such statements were available at the official website. The analysis will address the trends of NAV, performance of income, profitability, and expense management in the available financial periods. The number of periods reported for each fund differs because of their different inception dates.

2.5.1 UCB AML First Mutual Fund

AML First Mutual Fund was launched in April 2021 and has financial statements starting with FY2022 to FY2025, four years of data to analyse the trends. In the current period, total assets began with BDT 290.1 million in FY2022 and decreased steadily up to BDT 181.8

million in FY2024 and then back to BDT 221.6 million in FY2025. This shrinkage and partial recovery is similar to the overall equity market cycle in Bangladesh at the same time.

The same is the case with the NAV per unit at market value. It stood at BDT 10.85 in FY2022, declined to BDT 10.33 in FY2023, and fell sharply to BDT 8.95 in FY2024. This was the worst year of this fund. The gap between NAV at cost (BDT 10.56) and NAV at market (BDT 8.95) in FY2024. This is a BDT 23.2 million in unrealized losses on the equity portfolio, which has been caused by a long-term decrease in the stock market values. The NAV has improved to BDT 10.39 by FY2025 signifying that the market is performing better.

The fund had a net profit of BDT 19.8 million in FY2022 and an earnings per unit of BDT 0.75. This decreased drastically to BDT 4.4 million in FY2023 with EPS 0.18 and became a net loss of BDT 21.7 million in FY2024 with an EPS of -1.08 owing to the huge amount of unrealized losses. The fund showed significant recovery in FY 2025, recovering with a net profit of BDT 29.0 million and EPS of BDT 1.44 which is the highest of the four years. In FY2025, the total income was BDT 24.5 million and actual gains were BDT 8.5 million as a result of selling securities.

Table 01: AML First Mutual Fund Financial Summary[1]

Financial Year	Total Assets (BDT Million)	NAV per Unit (Market)	Total Income (BDT Million)	Net Profit/Loss (BDT Million)	EPS (BDT)	Expense Ratio
FY2022 (Apr 2021 - Jun 2022)	290.1	10.85	31.1	19.8	0.75	3.60%
FY2023 (Jul 2022 - Jun 2023)	249.3	10.33	21.4	4.4	0.18	3.52%
FY2024 (Jul 2023 - Jun 2024)	181.8	8.95	7.3	-21.7	-1.08	3.16%
FY2025 (Jul 2024 - Jun 2025)	221.6	10.39	24.5	29	1.44	2.56%

Source: UCB AML First Mutual Fund Annual Audited Financial Statements

The management of expenses was improved in the four years. The ratio of expenses decreased between FY2022 and FY2025 by 3.60 to 2.56 percent, which is more cost-effective as the fund matures. Management fees were the sole highest expense category in all the years

[1] AML First Mutual Fund started operations in April 2021; thus 4 years of data available.

between BDT 4.2 million and BDT 7.5 million per year which is in line with the general fee structure of actively-managed equity funds in Bangladesh.

2.5.2 UCB Taqwa Growth Fund

Taqwa Growth Fund started to operate in April 2022 and there are 3 periods of available financial statements. In FY2023, total assets amounted to BDT 331.0 million, which in FY2024 increased to BDT 347.5 million but in FY2025 it decreased to BDT 245.6 million. The loss in the FY2025 assets can be explained by the fact that there were great unit redemptions. The outstanding units reduced to 21.2 million in FY2025 compared to 35.1 million in FY2024, meaning that a large number of investors pulled out their money in this year.

Table 02: Taqwa Growth Fund Financial Summary[2]

Financial Year	Total Assets (BDT Million)	NAV per Unit (Market)	Total Income (BDT Million)	Net Profit/Loss (BDT Million)	EPS (BDT)	Expense Ratio
FY2023 (Apr 2022 - Mar 2023)	331	10.26	22.7	8.8	0.27	2.99%
FY2024 (Apr 2023 - Jun 2024)	347.5	9.85	21	-3.5	-0.1	3.27%
FY2025 (Jul 2024 - Jun 2025)	245.6	10.74	27.4	24.5	1.15	3.33%

Source: UCB Taqwa Growth Fund Annual Audited Financial Statements

BDT 10.26 in FY2023 is the NAV per unit at market value, which dropped to 9.85 in FY2024 and then picked up sharply to 10.74 in FY2025. With a net profit of BDT 8.8 million in FY2023 and EPS 0.27, the fund reported a net loss of BDT 3.5 million in FY2024, caused by the BDT 13.2 million in unrealized equity losses. BDT 24.5 million net profit and 1.15 EPS in FY2025 represented a remarkable recovery of the fund, which was backed by increased dividend income of BDT 9.0 million and better market valuations. The ratio of expenses was relatively consistent at approximately 3% in all three periods. TGF also has an exclusive

[2] Taqwa Growth Fund started operations in April 2022; thus 3 years of data available.

expense entry not included in AML that is the Shariah Advisory Meeting Fee. This is an indication of the expense of having its Shariah compliance oversight board.

2.5.3 UCB Income Plus Fund

UCB Asset Management Limited has a total of more than 40 funds, however, none is larger than Income Plus Fund in terms of total assets. There are FY2024 and FY2025 financial statements. The total assets increased significantly in FY2024 to BDT 1,661.2 million and to BDT 2,551.6 million in FY2025. Increasing it by 53.6% in one year. This phenomenal growth is an indication of high demand by investors in the fixed income products in the high interest rate environment in Bangladesh. When government papers were bearable with good returns as compared to equity.

Table 03: Income Plus Fund Financial Summary[3]

Financial Year	Total Assets (BDT Million)	NAV per Unit (Market)	Total Income (BDT Million)	Net Profit/Loss (BDT Million)	EPS (BDT)	Expense Ratio
FY2024 (Jul 2023 - Jun 2024)	1661.2	10.86	97.6	87.4	0.57	0.62%
FY2025 (Jul 2024 - Jun 2025)	2551.6	12.23	276	254.8	1.22	0.83%

Source: UCB Income Plus Fund Annual Audited Financial Statements

During this period, IPF was the most successful fund in terms of NAV growth with NAV per unit increasing by BDT 10.86 to BDT 12.23 in FY2024 and 2025 respectively. Net profit grew from BDT 87.4 million with EPS 0.57 in FY2024 to BDT 254.8 million with EPS 1.22 in FY2025. Which is majorly motivated by the interest earnings on government securities that stood at BDT 242.0 million in FY 2025. The cost to IPF is significantly lower as compared to the equity funds. Around 0.62% in FY2024 and 0.83% in FY2025. This is the indicator of lower transaction cost of a fixed income portfolio than actively traded equities.

[3] Income Plus Fund started operations in July 2023; thus 2 years of data available.

2.5.4 Comparative Overview of the Funds

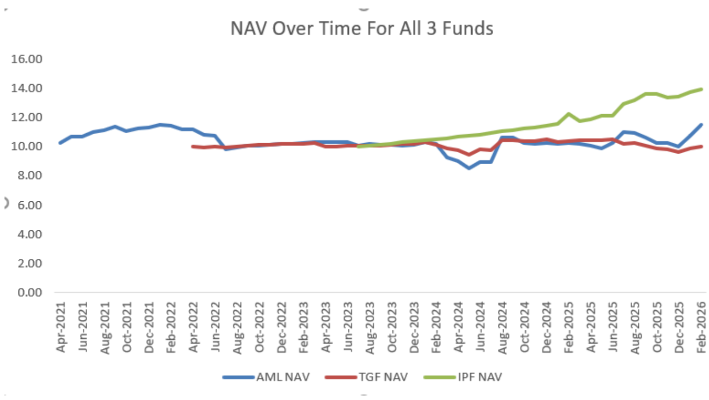

Figure 01: NAV of All Three Funds

When one looks at all three funds, there is a clear pattern. There was a high level of volatility in the performance of the equity funds as both of them registered losses in FY2024 and then recovered in FY2025. Conversely, IPF recorded a steady increase in NAV and profitability in the two years available. Directly benefiting from the high interest rate environment in Bangladesh. This comparison supports the results of the research project in Chapter 3. Where the equity funds were highly sensitive to the market whilst the IPF was sensitive to interest rates. The financial reports also attest to the fact that IPF is the new leading fund in assets under management; it indicates a wider change in preference of investors to the fixed income instruments at higher risk-free returns.

Table 04: Comparative Overview of All Three Funds (2025 Statement)

Fund	Total Assets FY2025 (BDT Million)	NAV per Unit FY2025 (Market)	Net Profit FY2025 (BDT Million)	EPS FY2025 (BDT)	Expense Ratio FY2025
AML First Mutual Fund	221.6	10.39	29	1.44	2.56%
Taqwa Growth Fund	245.6	10.74	24.5	1.15	3.33%
Income Plus Fund	2551.6	12.21	254.8	1.22	0.83%

Source: Annual Audited Financial Statements of Respective Funds

2.5.5 Accounting Practices

The accounting of portfolio valuation in all three funds of UCB Asset Management Limited is based on mark-to-market accounting. This implies that the market value of all securities would be updated according to the current market value and the NAV per unit will show this value daily. The financial statements always show both the NAV at cost and the NAV at market and the difference between these values is the unrealized gains or losses. This will provide investors with real-time transparency and is required by BSEC regulations.

The three funds are all based on accrual basis accounting, where income and expenses are recognized in the period they are earned or incurred. This is supported by the fact that the balance sheets have receivable items like dividend receivables, interest receivables and management fee payables. External chartered accountancy firms are auditing the funds annually, including previous years by Zoha Zaman Kabir Rashid and Co. and more recently by Russell Bedford. This guarantees external checking of the financial figures reported. Preparation of financial statements is in accordance with the Bangladesh financial reporting standards.

2.5.6 Ratio Analysis

The three funds' financial statement data was used to perform ratio analysis to gain additional insight into the financial performance and operational efficiency of the funds as well. Expense Ratio, Return on Assets (ROA), and Net Profit Margin are all included in the analysis. The ratios help determine the efficiency of each fund in leveraging its assets, controlling expenses, and generating income into net earnings over the time frame studied.

- AML First Mutual Fund

The ratio analysis of UCB AML fund is an indicator of the volatility of equity-based mutual fund investments over the period under study. The Expense Ratio (Total Operating Expense / Average Net Asset) was 2.91% in FY2025, reflecting a reasonably positive trend in cost efficiency over time. The ratio is still higher than the one of fixed-income funds, however, because the equity portfolio management and transaction costs are comparatively high.

ROA has been significantly variable in the years past, ranging from high levels in FY2023 (1.63%) to low levels in FY2024 (-10.07%) before a sudden turnaround to 14.35% in FY2025. The ROA turned negative in FY2024 due to unfavorable stock market conditions and valuation losses on the market downturn. FY2025's robust performance indicates that the market's performance and capital appreciation in the fund portfolio have improved.

Year	Net Profit (BDT Mn)	Average Total Assets (BDT Mn)	ROA
FY2022	19.8	290.1	6.83%
FY2023	4.4	269.3	1.63%
FY2024	-21.7	215.6	-10.06%
FY2025	29	201.7	14.38%

Table 05: ROA of AML First Mutual Fund

There was significant fluctuation in the Net Profit Margin during the study period. The margin of FY24 was very negative at -298.36%, as the losses were realised more than the fund's income. On the other hand, FY2025 saw a margin of 118.34%, which was mostly due to unrealized gains and better performance in the market. The high volatility shows that equity mutual fund profitability is dependent on the fluctuations of the stock markets and the change in valuation.

Year	Net Profit (BDT Mn)	Total Income (BDT Mn)	Net Profit Margin
FY2022	19.8	31.1	63.67%
FY2023	4.4	21.4	20.56%
FY2024	-21.7	7.3	-297.26%
FY2025	29	24.5	118.37%

Table 06: Net Profit Margin of AML First Mutual Fund

- Taqwa Growth Fund

TGF's expense ratio for FY2025 was 2.85%, which means it costs about 2.8 cent of every BDT 100 of its average net assets managed. This is due to the operational and management costs of performing Shariah compliant equity investments as compared to IPF. Notwithstanding the enhancement of profitability in FY2025, the fund still had a relatively high cost basis, influenced by its equity market exposure and its activities in portfolio management.

In FY2024, the negative ROA -1.41% was driven by unrealized market losses, which were a result of adverse equity market conditions. The ratio, though, enhanced considerably to 9.93% in FY2025, thanks to the fund's investment income and its bounceback from the losses incurred in the previous year. The improvement indicates better asset utilization as well as improvement in profitability in FY2025.

Year	Net Profit (BDT Mn)	Total Assets (BDT Mn)	ROA
FY2023	8.7	330.9	2.63%
FY2024	-4.9	347.5	-1.41%
FY2025	24.4	245.6	9.93%

Table 07: ROA of Taqwa Growth Fund

The negative net profit margin in FY2024 has been due to unrealized losses on falling market valuations amid a difficult equity market environment. In contrast, FY2025 demonstrated substantial recovery, with the net profit margin increasing to 89.42%. The significant increase suggests that a significant share of the fund's income was converted into earnings as a result of the improved performance of the fund's portfolio and the positive unrealized gain.

Year	Net Profit (BDT Mn)	Total Income (BDT Mn)	Net Profit Margin
FY2023	8.7	22.7	38.33%
FY2024	-4.9	21.1	-23.22%
FY2025	24.5	27.4	89.42%

Table 08: Net Profit Margin of Taqwa Growth Fund

- Income Plus Fund

The ratio analysis of UCB Income Plus Fund suggests that the financial performance and operational efficiency were good during the study period. In FY2025, the fund's Expense Ratio was 1.01%, indicating good cost efficiency based on the size of the fund's net asset value. IPF's focus is on the government treasury securities, so an operating cost structure is needed to assure consistent returns to investors.

The Return on Assets (ROA) increased from 5.26% in FY2024 to 12.12% in FY2025. Which indicates a significant improvement in the fund's ability to generate earnings from its asset base. The increase was mainly driven by higher interest income from government securities during the high interest rate environment.

Year	Net Profit (BDT Mn)	Average Total Assets (BDT Mn)	ROA
FY2024	87.3	1661.2	5.26%
FY2025	254.8	2102	12.12%

Table 09: ROA of Income Plus Fund

Likewise, the Net Profit Margin also stayed extremely high throughout the two years, increasing from 89.45% to 92.32%. This means that a substantial part of the income of the fund was disposed of as net profit after operating expenses. The margin has been consistently high, due to the relative low expense burden of the fund, and the relatively stable income-generating nature of fixed income securities.

Year	Net Profit (BDT Mn)	Total Income (BDT Mn)	Net Profit Margin
FY2024	87.3	97.6	89.45%
FY2025	254.8	276	92.32%

Table 10: Net Profit Margin of Income Plus Fund

2.6 Operations Management and Information Systems

The operational structure of UCB Asset Management Limited is lean yet well-organized, which addresses fund valuation, processing of transactions, dealing with clients, and communicating with investors. Although the company employs a small number of employees, the work is organized effectively with the clear division of duties between specific functional teams. In compliance with the BSEC rules, the funds of UCBAML are run in the form of a trustee and a custodian to safeguard the interests of unit holders. Sandhani Life Insurance Company Limited is the trustee of all funds and the custodian is the BRAC Bank PLC.

2.6.1 NAV Calculation and Publication

The calculation and publication of the Net Asset Value of its funds is one of the most important operational activities of any asset management company. UCBAML updates the NAV of all three funds on a daily basis on its official site. This is a regulation mandated by the BSEC guidelines. It ensures that at all times investors can access accurate and live information regarding the value of their investments. As all three funds use the mark-to-market accounting, the NAV indicates the current market value of the portfolio of the fund every trading day. Daily NAV publication is one of the transparency tools which characterize regulated mutual funds as opposed to other informal investment vehicles in Bangladesh.

2.6.2 Unit Management Process

Purchasing and selling of fund units imply a strong interaction of the Business Development team and the Operations and Support Team. An investor informs their Relationship Manager about the decision to purchase or redeem units. The Relationship Manager will then liaise with the Operations and Support Team to complete the transaction as a representative of the investor. The Operations team is responsible for the whole back-end procedure. They check the funds received in the company bank account, match the transaction to the appropriate investor account, and then determine the number of units to be allocated or redeemed based on the current NAV and lastly, update the portfolio of an investor. The process is multichannel as investors can make their requests online, at the branches of UCB Bank, or at the company.

2.6.3 Information System and Customer Portal

UCBAML has a specific web-based portal system to coordinate its activity and relations with clients. The Operations team operates a UCB web portal to save all the records of the clients, transaction histories and portfolio information. On the front-side, investors can access their own personal portal, which displays details of the investments in real time such as the amount invested, cost value of their investment, and its current market value according to the current NAV. This system not only offers efficiency in running the company but also offers transparency to the investors. Which is a crucial consideration in developing investor confidence in a market where confidence in financial products is still a major issue.

2.7 Industry and Competitive Analysis

2.7.1 Porter's Five Force Model

The Bangladesh mutual fund market exists in a competitive and regulated market. The Five Forces framework by Porter is used in this instance to evaluate the competition in this industry and the position that UCB Asset Management Limited holds in this industry.

- Threat of New Entrants: Moderate

Entry barriers in Bangladesh are represented by the necessity to license a company in Bangladesh by the Bangladesh Securities and Exchange Commission and to meet regulatory requirements in order to start an asset management company. These are however manageable by well-capitalized institutions. The existing firms that have pre-existing client bases and are accustomed to regulatory aspects can find it easy to enter. The existence of other competitors like Shanta Asset Management, IDLC Asset Management, IPDC Investments and LankaBangla Asset Management implies that there are various active competitors.

- Bargaining Power of Buyers: High

Bangladesh has several other options such as bank FDRs, government savings instruments, direct stock investments, and treasury instruments. It was difficult to persuade investors to invest in mutual funds instead of common investments such as FDRs. Before committing and initial conversion was the most challenging step many investors took time before they could commit. The bargaining power of buyers is high because the cost of switching prior to investment is zero.

- Bargaining Power of Supplier: Low

The first major input is the capital of the investors and a considerable number of investors pool their funds. No individual investor can therefore have a great influence. Also investments are made in regulated markets like Bangladesh Bank auctions and exchange at market-determined prices. Hence, the power of suppliers is low.

- Threat of Substitutes: High

A significant competitor factor is substitutes. At the time of the research, the Treasury Bill rate of 91 days was above the rate of 12% per annum. This is why the risk-free instruments were more appealing than mutual funds, particularly in volatile markets. Alternatives are provided by bank FDRs, Sanchaypatra, and treasury investments. This is an environment that is not easy to acquire clients. Chapter 3 data also indicate the mean monthly returns of AML of 0.26% and that of TGF of close to zero, which was less than the risk-free rate.

Mutual funds are a competitive product compared to high yielding risk-free securities. They do have some advantages that substitutes can't offer. Fixed deposits and treasury bills will give a fixed return but not capital gains. On the other hand, equity funds such as AML and TGF can provide that in the long term. Likewise, Sanchaypatra has a range of attractive guaranteed returns but its eligibility conditions and investment limits make it inaccessible for all types of investors. UCBAML can overcome the substitute threat by focusing on the long-term wealth creation potential of equity funds, diversification benefits of mutual fund investing and the professional management of their portfolios. There is also a tax-deductible benefit on investing in mutual funds. The fact that something Shariah compliant is available in TGF and a fixed income option is available for IPF means UCBAML is in direct competition to the other substitutes on their own merits. Especially for those who don't care so much about the high returns but more about capital safety.

- Competitive Rivalry: Moderate

There are a few operating asset management companies in the industry such as Shanta Asset Management, IDLC Asset Management, IPDC Investments, and LankaBangla Asset Management being the main companies. The basis of competition is on performance, brand trust, distribution, and product offerings. The drawback of UCBAML is the minimum SIP of BDT 5,000, which is not as low as that of its competitors such as Shanta, which is BDT 1,000. This may impede new investors and middle-income investors. In general, the competition is medium with the market expanding but not being overly densely populated yet.

2.7.2 SWOT Analysis

- Strengths

The key advantage of UCBAML is that it is supported by the UCB Bank PLC which is a well established and private commercial bank in Bangladesh. This provides the company with good credibility, a large branch network, and existing customers. It has a good institutional trust with an estimated management of approximately BDT 3.5 billion assets. It possesses a professional management team too. The provision of three varying fund products is aimed at catering to the varied needs of investors.

- Weaknesses

UCBAML was founded in 2020, which is why it is a newcomer in the industry. It lacks brand recognition as opposed to the older competitors. The company was not known to many potential investors. This was witnessed in the internship. It is also a drawback of the minimum SIP investment of BDT 5,000. Competitors have fewer entry points that are more accessible to new investors.

- Opportunities

The mutual fund industry in Bangladesh is immature. A lot of individuals save their money in bank accounts and fail to venture into other forms of investments. This opens a big market to UCBAML. The SIP model is applicable when investing small and frequent amounts. The younger investors who are more receptive to mutual funds can be reached using digital channels.

- Threats

UCBAML is highly competitive with the existing companies dealing with asset management. These competitors are more recognized through their brand and have longer track records. Trust on the part of investors is also a problem because most individuals are bothered by the issues of safety and fraud. Investor confidence is influenced by stock market volatility.

Substitutes such as FDRs and treasury instruments are better than mutual funds due to the high interest rates.

2.8 Summary and Conclusion

UCB Asset Management Limited is a newly established yet well-established asset management firm in Bangladesh. That is justified by institutional capabilities of UCB Bank PLC and delivering a wide range of fund products to suit different profiles of investors. The organizational analysis reveals that UCBAML has a professional and cooperative team culture, formalized onboarding process, and performance-based management style. The equity funds were quite fluctuating in respect of finance during the study period. On the one hand, Income Plus Fund has shown an impressive growth in assets and profitability within the framework of a high interest rate environment in Bangladesh. This information system is a dual portal system used to enable internal operations and investor facing reporting within the company.

Nonetheless, the analysis also points out some of the challenges that UCBAML needs to overcome to consolidate its market. The absence of brand recognition, increased SIP minimum compared to those of its competitors and retain the distrust of investors in the security of mutual funds. As the analysis of the Porters Five Forces has shown, the threat of substitutes and high buyer bargaining power are the acute competitive forces that the company has to grapple with. However, UCBAML also has a brighter future given the fact that the mutual fund market in Bangladesh is still largely unexploited and that the company has recorded a significant growth in AUM which is indicative of the fact that it has a sustainable base to grow to a long-term growth strategy.

2.9 Recommendations

Based on the findings of the organizational analysis in this chapter the following recommendations can be given to UCB Asset Management Limited.

Firstly, UCBAML should consider lowering the minimum SIP investment limit to ensure that new and middle-income investors can be able to access it. The existing BDT 5,000 minimum is a hindrance when compared with other competitors such as Shanta Asset Management who have SIP with BDT 1,000 minimum. The decrease in this threshold would enable UCBAML to enjoy the huge and expanding segment of younger Bangladeshi investors who willingly invest in small amounts periodically.

Secondly, companies should make strategic plans for brand building. Among the challenges that were encountered during the internship was the fact that most of the potential investors were not aware of UCBAML and questioned about fraud and safety of capital. Specifically targeted digital content, social media campaigns that help people understand how regulated mutual funds work and community-level financial literacy programs would help address this lack of trust in the long term and reach out to more people than the current network.

Thirdly, UCBAML needs to consider increasing its channels of distribution other than UCB Bank branch referrals. Even though the bank referral system is potentially effective, it is limited to the existing customers of the UCB Bank. Partnerships with mobile finance and other fintech applications and other banks would enable UCBAML to increase the number of potential investors and diversify the distribution channel.

Lastly, since Chapter 3 results showed that high interest rate environments have a detrimental impact on equity fund attractiveness. UCBAML should have an effective communication plan, which will make its equity funds look as a long term wealth building mechanism as opposed to the short term mechanisms of generating returns. The retention of investors and attraction of new ones despite high risk-free rates would be through the teaching of investors about the historical background of equities outperforming fixed income instruments over the long-term and the benefits of remaining invested at times of declines in the market.

Chapter 3: Project Part

Comparative Performance and Market Sensitivity Analysis of the Funds of UCB Asset Management Limited

This chapter of the project represents the research conducted during the internship period. This calculates the performance and market sensitivity matrices of the three funds' monthly return data. This chapter is constructed to cover the objectives and the background of the study, the relevant literature review, the methodology that was applied, the analysis and findings, and lastly a summary based on the results.

3.1 Introduction

3.1.1 Background and Problem Statement:

Mutual funds play an important role in capital market development by offering diversified investment criteria to investors with diversified risk preferences. The mutual fund industry in Bangladesh has been gradually growing while providing alternative instruments to the traditional savings instruments. UCB Asset Management Limited manages and monitors different types of open-ended funds, such as equity-based and fixed-income-based funds: UCBAML First Mutual Fund, Taqwa Growth Fund, and Income Plus Fund. Each is designed to serve different investor risk-return profiles. However, as Mutual Funds are yet to be popular in Bangladesh, investors often lack clarity and understanding of how these funds perform under market and interest rate conditions. While mutual funds are rapidly gaining prominence in the Bangladesh capital market, empirical research on the impact of macroeconomic factors on the returns of individual funds, such as stock market returns and interest rates, is not sufficient in the country.

To fill this gap, this research employs quantitative analysis of the performance and market sensitivity of UCBAML's three funds. This study aims to answer the following questions:

- RQ1: To what extent are equity-based funds (AML First Mutual Fund and Taqwa Growth Fund) sensitive to the movement of stock markets (DSEX) and an income-based fund (Income Plus Fund) to changes in interest rates?
- RQ2: What are the comparisons between the UCBAML funds based on their return and risk characteristics?

3.1.2 Objectives:

The main objectives to address the research questions are,

- RO1: How responsive are equity funds (AML First Mutual Fund and Taqwa Growth Fund) to equity market fluctuations in terms of DSEX index? What is the sensitivity of the Income Plus Fund to the changes in 91-day Treasury Bill rate?
- RO2: What are the differences in return and risk between the three UCBAML funds?

3.1.3 Significance:

This study is significant because it provides a company-specific evaluation of the UCBAML funds and helps investors to understand the risk-return characteristics of the funds. For example, a retail investor trying to decide whether to put their money in a mutual fund versus an FDR or an investor choosing between an equity fund versus a fixed income fund. Thus my study provides them with actual data-backed evidence to help them make a decision. One of the most important aspects of this study is the timing. During the time frame of 2021 to 2024, the Treasury Bill rate went up to 12% from 0.45%. So investors might question whether a mutual fund's risk-return trade off is worth it or not. This challenge was faced by AML and TGF because their mean monthly return was respectively 0.26% and 0.01%; which is nearly

0%. Meanwhile IPF's mean monthly return was 1.07%. This study directly explains this concern by giving the evidence on how the equity funds performed relative to market movements. Because it connects directly to the real financial decision that investors always face.

This study is also useful for UCB Asset Management Limited as a company because by understanding how each fund behaves under different market conditions, the company can communicate with potential investors more effectively. For example, the findings showcase that AML moves closely along with the stock market whereas TGF is less market sensitive while IPF does respond to interest rate movements. This will help the company to suggest the right investor with the right fund option because some might have a higher risk with a higher return preference, while some might want a stable return. As a Business Development Intern, I had to assist and convince potential investors to invest in these funds. Thus, having clear evidence and understanding how each fund behaves would make it more credible and helpful.

Studies on mutual fund performance in Bangladesh are relatively scarce, especially for specific funds and companies. The majority of research concerns the whole capital market or general analyses of the mutual fund industry. Research that considers individual funds using real NAV data and explores their dynamics in response to macroeconomic factors like market performance and interest rates is rare in Bangladesh. This research helps address this gap by providing a company-level analysis of three UCBAML funds based on real NAV data over several years. The results contribute to the empirical literature on emerging market mutual fund dynamics and offer a methodology that can be used to study other asset management firms in Bangladesh.

3.1.4 Scope of the Study:

This study encompasses the Mutual Funds of UCBAML which are AML First Mutual Fund, Taqwa Growth Fund, and Income Plus Fund. The period of time that is covered for AML is April 2021 to February 2026, for TGF is April 2022 to February 2026, and for IPF is July 2023 to February 2026. Actual NAV data for each fund was also available.

The study uses monthly return data calculated from the daily NAV amount. The analytical techniques used were Descriptive statistics, Correlation analysis, and Regression analysis. The benchmark for equity funds was the DSEX index and the interest rate proxy for IPF was the 91-day T-Bill rate from Bangladesh Bank.

Limitations:

- No other company is compared with UCBAML in this study.
- The study does not have an advanced econometric model for analysis.
- The return calculation does not account for the dividend distribution or tax implications.
- The study does not cover the qualitative aspects of fund management strategy changes over time.

3.2 Literature Review

Performance analysis of mutual funds is a trending area of study in the financial field particularly in the developed markets. Nevertheless, the number of empirical studies on emerging markets such as Bangladesh is rather low. The following review examines the major research papers in these fields and finds the gap that the current research is expected to cover.

This study has the theoretical foundation of the Modern Portfolio Theory. According to the theory, an increase in the expected returns is always linked to an increase in risk (Yu and

Zhang, 2023). This principle is the approach of this paper, whereby mean return and standard deviation will be used to compare risk-return characteristics of the three UCBAML funds. Sawant et al. (2023) state that most mutual funds failed to beat their benchmark index on a risk-adjusted basis, with only two out of twelve funds beating the market. This implies that an active management of funds may not necessarily yield better returns. Their study methodology is supported by the risk-return analysis framework employed in their study, where the correlation and regression analysis is implemented to explore the market and interest rate sensitivity.

Performance of mutual funds is usually measured in terms of return, risk and sensitivity to market and macroeconomic factors. The changes in Net Asset Value (NAV) are normally used to compute the returns and risk is quantified by the standard deviation of returns. The regression based models are very popular in studying the reaction of fund returns to external events like stock market variation and alteration of interest rates.

Little research on the performance of mutual funds in Bangladesh has been conducted. Chowdhury et al. (2020) discovered that mutual funds could create greater returns in the short-term but could not maintain this in the long-term. They also did not find any significant correlation between fund size and performance. Likewise, Rahman and Rahman (2022) utilized regression analysis and demonstrated that the earnings-related variables have a positive impact on fund performance, and the fund age and asset growth have a negative impact. These works justify the application of the return analysis and regression techniques in the analysis of mutual funds.

Global studies also support the relevance of market sensitivity in the performance of funds. Rao et al. (2019) demonstrated that the returns of mutual funds are affected by the general market trends and that the relationship is quantifiable with the help of Beta. This applies especially in equity based funds, where returns are anticipated to move corresponding to the stock market index. Interest rate is an important factor in the case of fixed-income investments. Gubareva and Borges (2017) discovered that bond returns are also sensitive to the fluctuations in interest rates and tend to have an inverse relationship. This is significant in the case of income-based funds, which rely on government securities and bond yields.

Nonetheless, the majority of the current research is on general market analysis. To be exact, there is no study concerning the responses of individual funds to both market returns and interest rate changes through the use of recent data. Thus this paper concentrates on funds run by UCB Asset Management Limited and measures the returns, risk, and sensitivity of the funds using NAV-based information. This offers a more viable and company specific insight about the performance of mutual funds in Bangladesh.

3.3 Methodology

This whole study is a quantitative study using secondary data. The Study period of UCBAML funds are different due to the different introduction period. The data source for the daily NAVs of each fund is the UCBAML website, for the monthly DSEX index is the Dhaka Stock Exchange website, and for the monthly average 91-day T-Bill is from the Bangladesh Bank auction data. The software used for analysis is Microsoft Excel with Data Analysis ToolPak.

3.3.1 Study Period

AML First Mutual Fund's operations began in April 2021, Taqwa Growth Fund's in April 2022 and Income Plus Fund's in July 2023. Due to the different inception dates for each fund, it was not possible to use the same period of time for study. NAV data are only available from the date when each fund began operations. To get the best available analysis of each fund, the analysis is done over the longest period of data available for each fund.

- AML First Mutual Fund: April 2021 to February 2026
- Taqwa Growth Fund: April 2022 to February 2026
- Income Plus Fund: July 2023 to February 2026
- DSEX Index: April 2021 to February 2026
- T-Bill Cut-off Yield: July 2023 to February 2026

The daily NAV of each fund was converted into monthly return by taking the last trading day of NAV and calculating the percentage change = [(New Month NAV - Previous Month NAV)/Previous Month NAV] x 100. Weekly T-Bill auction yields are averaged to monthly figures.

3.3.2 Analytical Framework

In this study, three analytical techniques are used to fulfill research objectives. They are correlation analysis, simple linear regression, and descriptive statistics.

- Correlation Analysis

Correlation Analysis is a technique that helps determine the strength and direction of the linear relationship between two variables. The Pearson correlation coefficient is between -1 and +1. A number near +1 means there is a strong positive association between the two variables, a number near -1 means there is a strong negative association between the two variables, and a number near 0 means there is no linear association between the two variables. The measurement of the correlation of equity fund returns was against DSEX returns, and IPF returns with changes in the T-Bill rate using correlation.

- Regression Analysis

Each fund's sensitivity to its respective market variable is quantified using Regression Analysis. Three separate regressions are estimated and reported. In the case of AML First mutual fund and Taqwa Growth mutual fund, the independent variable is the return on DSEX on a monthly basis. When it comes to predicting the month-on-month change in the 91-day T-Bill rate, the independent variable is the change in the rate for Income Plus Fund. This is because the changes in interest rates in a particular month affect IPF's NAV in that month, rather than the absolute rates in that month. These regression equations are obtained by Ordinary Least Squares regression model using Data Analysis ToolPak in MS-Excel. The p value at the 5% significance level ($p < 0.05$) is used to assess the statistical significance. This is measured by the coefficient of determination R^2. This represents the percentage of the variability in fund returns that can be accounted for by the market variable.

- Descriptive Statistics

Each fund's return and risk characteristics are summarized with Descriptive Statistics. Fund performance is measured by the fund's mean monthly return, which is the average of each and every monthly return for the period of the study. The risk measure is the standard deviation of monthly returns, which measures the volatility of returns over time.

3.4 Findings and Analysis

3.4.1 The Correlation Analysis:

This analysis measures how two variables react to each other. The correlation coefficient range from -1 to +1 means a strong negative to a strong positive relation. Where 0 to near 0 value indicates little to no linear relation. Through this analysis it can be seen how equity funds are against DSEX index and how IPF is against the changes in 91 days T-Bill rate.

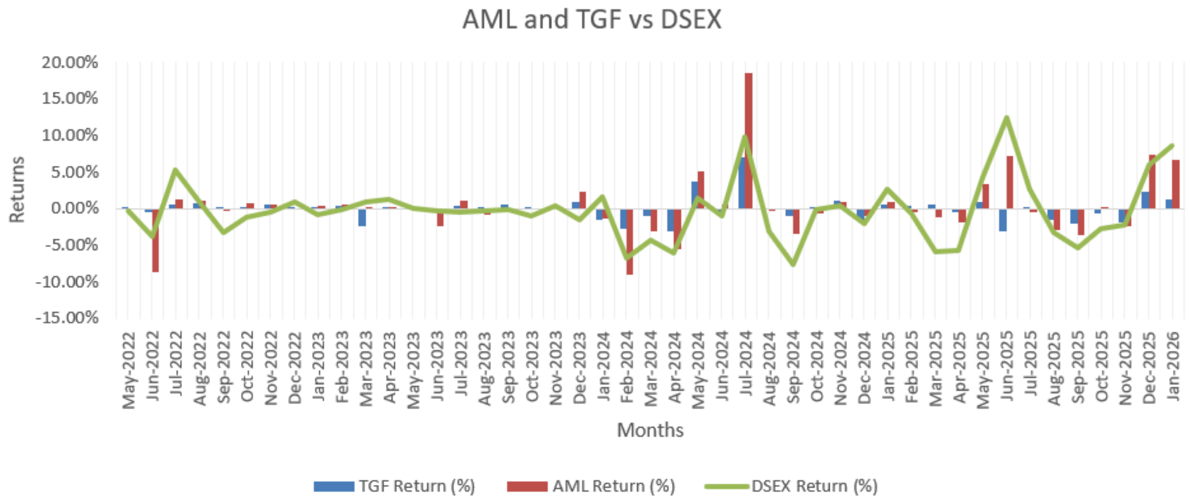

Figure 02: Monthly return of AML, TGF, and DSEX

- Equity Funds vs DESX Index:

The correlation matrix for the equity funds shows some significant correlations. AML First AML First Mutual Fund is highly correlated which is 0.7645 with the DSEX index. This means that the monthly returns of AML are strongly correlated to the stock market as a whole as when the DSEX index grows, AML tends to grow and when the DSEX index shrinks, AML shrinks. This is in line with expectations as AML only invests in the blue-chip listed equities and hence is highly dependent on the stock market.

Taqwa Growth Fund has a weaker but positive correlation of 0.4570 with the DSEX index. TGF also shows a positive correlation with the market, but it is not as strong as AML. This could be due to TGF's investment mandate that allows it to only invest in Shariah-compliant stocks which excludes it from investing in conventional banking and financial sector stocks sectors which are heavily represented in the DSEX index. So, TGF does not perfectly align with the stock market and is less affected by market fluctuations.

The correlation between AML and TGF is 0.7322 which implies a strong positive relation. Which is logical as both funds invest in listed equity markets and are impacted by the same macroeconomic conditions. Although the investment market range is different due to Shariah compliance. Thus the strong correlation indicates that despite their differences both move in the same direction.

Part A: Equity Funds vs DSEX			
	AML Return	**TGF Return**	**DSEX Return**
AML Return	1	0.7322	0.7645
TGF Return	0.7322	1	0.4570
DSEX Return	0.7645	0.4570	1

Table 11: Correlation between Equity funds and DSEX

- IPF vs Change in T-bill rate:

The correlation between the monthly return of Income Plus Fund (IPF) and the monthly change in the 91-day Treasury Bill rate is -0.4711, suggesting a moderately negative correlation. This implies that when the T-Bill rate rises the IPF's return tends to fall and in months when the T-Bill rate declines, the IPF's return tends to rise. This negative correlation makes sense from a fixed income theory perspective. As interest rates in the market increase, the prices of existing fixed income instruments decrease because newer bonds provide a higher return, making existing bonds less desirable. As IPF is invested mainly in government treasury and bonds, it is exposed to these changes in interest rates. The moderate negative correlation of -0.4711 confirms that interest rate risk does play a significant role in IPF's monthly returns.

Part B: IPF vs Change in T-Bill Rate		
	IPF Return	**Change in T-Bill Rate**
IPF Return	1	-0.47112
Change in T-Bill Rate	-0.47112	1

Table 12: Correlation between IPF and Change in T-Bill rate

- Equity Funds vs Change in T-bill rate:

Additional analysis was conducted to examine whether changes in the Treasury Bill rate also influenced the equity funds.

Part C: Equity Funds vs Change in T-Bill Rate			
	AML Return (%)	*TGF Return (%)*	*Change in T-Bill Rate*
AML Return (%)	**1**	0.783303967	-0.142229606
TGF Return (%)	0.783303967	**1**	0.123944203
Change in T-Bill Rate	-0.142229606	0.123944203	**1**

Table 07: Correlation between Equity fund and Change in T-Bill rate

The results show that both the AML and the TGF had weak and negative correlation with the changes in T-Bill rate. This indicates that the performance of equity funds may be influenced indirectly by the increase in interest rates. As the attractive investment options of risk-free securities like Treasury Bills and Fixed Deposit Receipts (FDRs) increase. When interest rates are higher, it means that the investors may be less likely to invest in stocks overall. This result aligns with the market conditions prevailing throughout the study period, as high T-Bill rates make equity-based mutual funds less attractive to investors.

This analysis gives a clearer picture of this study. AML is highly market-sensitive, TGF is moderately market-sensitive because of its limited investment pool and IPF is negatively correlated to interest rate trends. These reflect the different characteristics of the funds and have significant implications for investors depending on their views on future market performance and interest rates.

3.4.2 The Regression Analysis:

This analysis was conducted to determine how sensitive each fund is to its market variables. The DSEX monthly return was counted as the independent variable for the equity funds. As for IPF, the change in T-bill rate was used as the independent variable. The regression was done by Microsoft Excel Data Analysis Toolpak.

- AML vs DSEX Index:

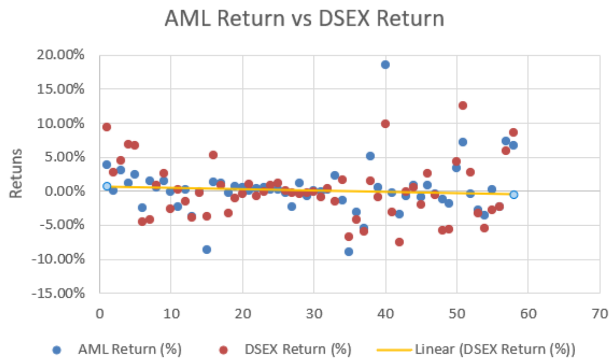

Figure 03: Regression Analysis of AML vs DSEX

The results of the regression on AML First Mutual Fund indicate a Beta value of 0.695 meaning that if the DSEX index moves by 1%, AML's monthly returns will move by around 0.695% in the same direction. AML is 69.5% as volatile as the market because it tends to move in the same direction as the market, but with less movement. The R^2 coefficient of 0.585 confirms that 58.5% of AML's monthly return variations are due to the DSEX index. That's a high coefficient of determination for single factor models, and it indicates the stock market is indeed the main driver of AML's returns. The p-value for the Beta coefficient is very close to zero, so this result is statistically very significant. The intercept was not statistically significant ($p = 0.593$), which indicates that AML does not produce significant returns in and of itself. In summary, AML is a market-funded fund because if the market goes up, AML goes up and if the market goes down, AML goes down.

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.00177629	0.003304826	0.537484	0.593062985	-0.004844071	0.008396652	-0.004844071	0.008396652
DSEX Return (%)	0.69542419	0.078350582	8.875801	0.000000000	0.538469114	0.852379266	0.538469114	0.852379266

Table 14: Regression Analysis of AML vs DSEX

- TGF vs DSEX Index:

The results of the regression analysis for Taqwa Growth Fund are a Beta of 0.186, which means that for every 1% change in the DSEX, the monthly return of TGF changes by 0.186%. This Beta is much lower than AML, meaning that TGF is less affected by overall market movements.

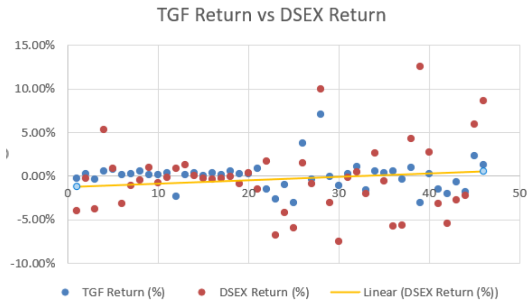

Figure 04: Regression Analysis of TGF vs DSEX

The R^2 of 0.209 implies that only about 20.9% of the variance in TGF's monthly return is due to DSEX movements, while the remaining 79% is due to some other factor. The p-value of 0.001 indicates that there is a statistically significant correlation, but the low Beta and the low R^2 explain why TGF is different from AML. The main driver of TGF's reduced sensitivity to the market is its Shariah-compliance mandate. TGF cannot invest in conventional or non-Islamic banking and financial institutions and other industries that are not considered compliant with Islamic finance. These industry sectors, especially banks, have a large weight in the DSEX index and account for a large proportion of market changes. Since TGF cannot invest in these companies, these stocks are not well represented in its portfolio and its returns do not correlate as closely with DSEX. There are a limited number of Shariah-compliant blue chip companies in Bangladesh, further reducing TGF's exposure to the market movers in the index. This makes TGF a fund that is partially exposed to the equity market, while being somewhat hedged against market fluctuations. A feature that may be attractive for investors seeking equity investment with reduced market risk.

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.000635624	0.002229192	0.285136294	0.77687763	-0.003857018	0.005128266	-0.003857018	0.005128266
DSEX Return (%)	0.185604093	0.054467051	3.407639838	0.001411223	0.075832964	0.295375221	0.075832964	0.295375221

Table 15: Regression Analysis of TGF vs DSEX

- IPF vs Change in T-Bill Rate:

The regression results for the Income Plus Fund have a Beta value of -1.591 meaning that for every 1% change in the monthly T-Bill rate, IPF's monthly return will change by -1.591%. The minus sign is the key finding that confirms the negative relationship between interest rates and fixed income fund returns that was also found in the correlation analysis.

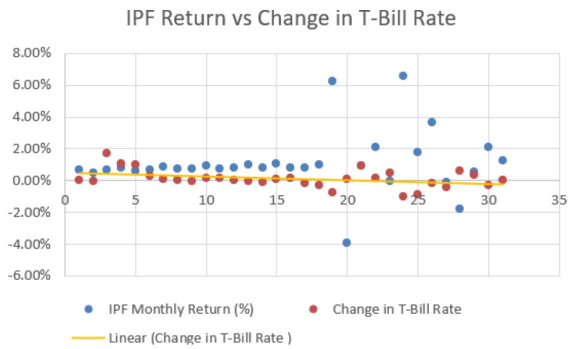

Figure 05: Regression Analysis of IPF vs Change in T-Bill rate

Higher interest rates in the market will result in a lower value for fixed income securities already owned by IPF, which in turn will depress its NAV and monthly return. Likewise the inverse with falling rates, IPF profits. The R^2 of 0.222 indicates that 22.2% of the variation in IPF's monthly return is explained by the T-Bill rate. This of course leaves a significant amount of variation unexplained but it is still noteworthy and statistically significant at a level of $p = 0.007$. The significant intercept of 0.0122 ($p = 0.000$) is also worth noting, as it shows that IPF earns a base monthly return of 1.22% in months where there is no change in the T-Bill rate. This is due to the regular coupon and interest income IPF receives from its holdings of government securities which is typical of income-oriented fixed income funds.

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.012184399	0.003048949	3.996262	0.000404145	0.005948598	0.018420199	0.005948598	0.018420199
Change in T-Bill Rate	-1.590459676	0.552957719	-2.87628	0.007469535	-2.721385194	-0.459534157	-2.721385194	-0.459534157

Table 16: Regression Analysis of IPF vs Change in T-Bill Rate

- AML vs Change in T-Bill Rate:

The regression result indicates there is a weak negative relationship between the returns of AML with changes in the 91-day T-Bill rate. The figure of the change in T-Bill rate is -1.241, indicating that a rise in the T-Bill rate may lead to a decrease in AML return. This aligns with the notion that an equity investment with higher risk-free returns would be less appealing to the investor.

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.00574578	0.008677265	0.662165	0.512921	-0.01197556	0.02346712	-0.01197556	0.02346712
Change in T-Bill Rate	-1.241190654	1.577066818	-0.78702	0.437441	-4.461990778	1.97960947	-4.461990778	1.97960947

Table 17: Regression Analysis of AML vs Change in T-Bill Rate

But the association is not statistically significant since the p value is greater than 0.05 (p value is 0.437). The R-square for the T-Bill rate is also very small at 2.02%, which implies that the T-Bill rate accounts for a very small proportion of the variation in AML's return.

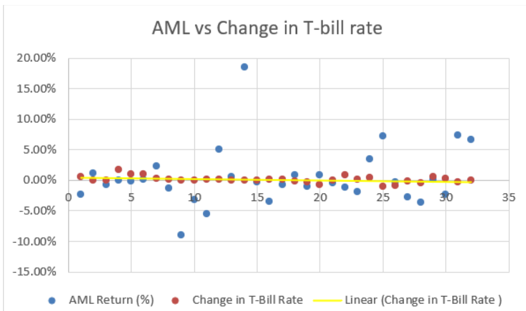

Figure 06: Regression Analysis of AML vs Change in T-bill rate

Thus, the result shows that the increase in the T-bill rates will have a slight negative impact on AML, but it is not statistically significant. Much of the explanation for AML's return is attributable to stock market movements instead of actual changes in the T-Bill rate.

- TGF vs Change in T-Bill Rate:

The regression result indicates that there is a very weak positive correlation between the returns on TGF and the changes in 91-day T-Bill rate. During the period studied, a rise in the T-Bill rate was related to a small rise in the TGF return, with a coefficient of 0.443.

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.000468184	0.003559266	-0.131539432	0.896226806	-0.007737174	0.006800806	-0.007737174	0.006800806
Change in T-Bill Rate	0.442564105	0.646885773	0.684145677	0.49913438	-0.878552892	1.763681103	-0.878552892	1.763681103

Table 18: Regression Analysis of TGF vs Change in T-Bill Rate

This is not statistically significant, however, because the p value is = 0.499, which is greater than 0.05. The R-square value is also only 1.54%, which indicates that the variation in the return of TGF has few components of variation explained by the change in the T-Bill rate.

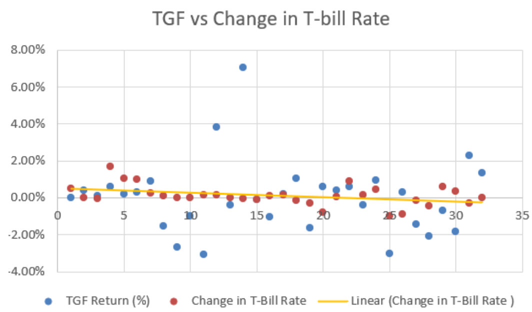

Figure 04: Regression Analysis of TGF vs Change in T-bill rate

Thus, the findings suggest that the impact of T-Bill rate changes on the returns on TGF is not meaningful or reliable. However, stock market movement, choice of Shariah compliant portfolio, and the fund itself have a greater influence on the performance of TGF, as opposed to the actual changes in the T-Bill rate.

From the three regression results, we observe that the differences between the three funds reflect the underlying characteristics of the funds. AML is highly correlated to the stock market with a high Beta and R^2, it is recommended for investors with a positive view of the stock market. TGF also has a positive market relationship but with a lower Beta and R^2, which means it is not fully correlated to the market because of the Shariah-compliant constraints. IPF has an inverse relationship with interest rates, it is exposed to the monetary policy cycle with positive returns in a declining interest-rate environment and under pressure in a rising interest-rate environment. These results address the research questions of the study and offer data-supported evidence for investors to select among these three funds in accordance with their investment strategies and risk tolerance.

Regression of AML First Mutual Fund				
Parameter	**Beta**	**R^2**	**p-Value**	**Significance**
AML vs DSEX	0.6950	58.5%	0.0000	$p<0.01$= Strong, Highly significant market sensitivity
Regression of Taqwa Growth Fund				
Parameter	**Beta**	**R^2**	**p-Value**	**Significance**
TGF vs DSEX	0.1860	20.9%	0.001	$p<0.01$= Moderate, significant but low market sensitivity
Regression of Income Plus Fund				
Parameter	**Beta**	**R^2**	**p-Value**	**Significance**
IPF vs Tbill	-1.5910	22.2%	0.007	$p<0.01$= Significant negative interest rate sensitivity

Table 19: Regression Analysis Summary of Each Fund

3.4.3 Descriptive Statistics

Statistic	AML Return (%)	TGF Return (%)	DSEX Return (%)	IPF Return (%)	T-Bill Avg Rate (%)
Mean Return	0.26%	0.01%	0.19%	1.07%	10.62%
Std Deviation	3.84%	1.66%	4.21%	1.84%	1.28%
Maximum	18.60%	7.05%	12.50%	6.53%	12.07%
Minimum	-9.01%	-3.07%	-7.56%	-3.96%	7.31%
No. of Months	58	46	59	31	32

Table 20: Descriptive Statistics

Descriptive statistics help with identifying important observations about the return-rick characteristics. Among equity funds, AML recorded a mean return of 0.26% with a standard deviation of 3.84% which indicates the volatility. Meaning investors got a small profit while being exposed to fluctuations with maximum return being 18.6% and minimum return being

-9.01%. As for TGF, mean return was very low of 0.01% with standard deviation of 1.66%. Meaning investors received a minimal amount of profit while getting exposed to moderate volatility. However, this comparison among equity funds indicates that AML is more volatile than TGF. As IPF showcased the most favorable mean return of 1.07% and standard deviation is 1.84% which is much better than other two funds. The maximum return 6.53% and minimum return -3.96% indicates a more stable nature of fixed income investments.

These results need to be viewed against the backdrop of Bangladesh's interest rate environment during the period under analysis. The average rate of 91-day Treasury Bill was 10.62% per year or 0.88% per month. The average monthly return of AML is 0.26% and the almost zero return of TGF was very low. This was not sufficient to compensate for the risk because the investor could have achieved a similar return from safer bonds. Even IPF's mean monthly return of 1.07% entailed higher risk in terms of NAV fluctuations although higher than the T-Bill monthly return. This suggests that the rising interest rate in Bangladesh during 2022 to 2024 was not a favourable time for these three UCBAML funds, especially the equity funds.

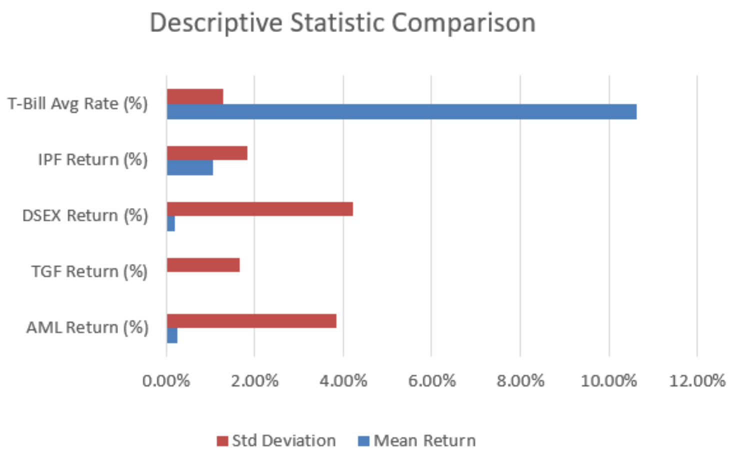

Figure 08: Comparison of mean return and standard deviation

The DSEX index itself had the highest standard deviation of 4.21% and a mean monthly return of 0.19% during this period, suggesting that the overall market performance too was volatile and offered low mean return. This also indicates that the returns of both AML and TGF were significantly less or at best equal to the market average while the volatility was equal or less during this period, reaffirming this period as a challenging market environment for equity mutual funds in Bangladesh.

3.4.4 Risk-Adjusted Performance Analysis

A risk-adjusted performance analysis was performed to determine if the funds produced a satisfactory return in relation to the amount of risk an investor took in the purchase of a fund. Sharpe Ratio and Treynor Ratio have been computed in this section.

- Sharpe Ratio

The Sharpe Ratio is the amount of return a fund makes above its risk level. Standard deviation is used as the measure of total risk. Sharpe ratio= (Monthly Mean Return - Risk free Rate) / Standard Deviation.

Funds	Mean Monthly Return	Average Monthly T-Bill rate	Standard Deviation	Sharpe Ratio
AML	0.26%	0.88%	3.84%	-0.16
TGF	0.01%	0.93%	1.66%	-0.55
IPF	1.07%	0.96%	1.84%	0.06

Table 21: Sharpe Ratio

The Sharpe Ratio results indicate that both AML and TGF earned negative risk returns during the period. That implies that these equity funds weren't quite making up for the risk associated with investing in them versus the risk-free T-Bill rate. TGF had the poorest Sharpe Ratio due to its Sharpe Ratio being close to zero even as the risk-free rate was fairly high. On the other hand, IPF had a slight positive value on Sharpe Ratio of 0.060. This means that IPF slightly beat the risk free index on a relative basis. While the return was not particularly large, it did indicate that the risk compensation that IPF offered was higher than equity funds were throughout the study period.

- Treynor Ratio

The Treynor Ratio is a ratio of excess returns on a security or portfolio to its systematic risk in the market. Here, Beta is used as the measure of systematic risk. Treynor Ratio= (Mean Monthly Return−Risk Free Rate) / Beta.

Funds	Mean Monthly Return	Average Monthly T-Bill rate	Beta	Treynor Ratio
AML	0.26%	0.88%	0.6950	-0.89%
TGF	0.01%	0.93%	0.1860	-4.95%

Table 22: Treynor Ratio

The Treynor Ratio was computed for only AML and TGF as they are equity funds and the Beta computed against DSEX. IPF's Beta has been computed against the T-Bill rate rather than the stock market index. Thus is not included in the calculation of Treynor Ratio. The Treynor Ratio findings were supported by the results of the following. The negative Treynor Ratios of both AML and TGF indicated that the equity funds were unable to deliver the excess return for the systematic market risk that the investors had to bear. AML achieved higher performance than TGF in this regard as its Treynor Ratio was negative and lower.

AML and TGF were not able to beat the risk-free T-Bill during the study period. It's for this reason that the Sharpe and Treynor Ratios are negative with the equity funds. The only fund to slightly outperform the T-Bill benchmark was IPF. But that's not to say IPF was a risk-free experience. It has a standard deviation of 1.84%, indicating that the fund continued to have NAV variations. With this, the overall results suggest that it was hard for equity mutual funds to deliver superior short-term risk-adjusted returns to government securities

3.5 Summary

This study examined the performance and sensitivity of the three funds that are managed by UCB Asset Management Limited. The funds are AML First Mutual Fund, Taqwa Growth Fund, and Income Plus Fund. Monthly return data, Descriptive Statistics, Correlation, and Regression analysis were used for this study.

3.5.1 Risk and Return Characteristics

The descriptive statistics show a variation in the risk-return characteristics of the three funds. AML First Mutual Fund was the riskiest among the three funds with a standard deviation of 3.84%, but showed a mean monthly return of 0.26% during the period. The Taqwa Growth Fund had a lower standard deviation (1.66%) but delivered a near-zero mean monthly return (0.01%) implying that Shariah-compliant equity investors did not benefit much during the period of study. Income Plus Fund produced the highest mean monthly return of 1.07% and a standard deviation of 1.84%, making it the best fund in terms of risk and return during the period. It turns out that equity funds failed to compensate for the risk premium over risk-free assets. This suggests the challenge faced by equity funds in high interest rate environments in Bangladesh.

3.5.2 Sensitivity of Equity Funds (AML & TGF)

AML and TGF were both significantly correlated with DSEX. Market returns have a significant impact on the returns of equity funds in Bangladesh. AML showed a high positive correlation of 0.7645 with DSEX and a Beta of 0.695, which suggests that the fund mirrors the market and moves in the same direction as the market. On the other hand, TGF demonstrated a lower positive correlation of 0.4570 and a significantly lower Beta of 0.186, which is the result of its Shariah-compliant investment constraints. The regression analysis revealed that 58.5% of the returns of AML are explained by the DSEX index while the figure for TGF is 20.9%. This suggests that while both of the equity funds are affected by the stock market, AML is more affected than the TGF. Due to the impact of the limited investment universe under Shariah rules.

3.5.3 Sensitivity of IPF

Income Plus Fund (IPF) showed a statistically significant negative correlation with the change in the 91-day Treasury Bill rate with an R of -0.4711 and a Beta of -1.591. This shows that interest rates and IPF's monthly return are inversely correlated: IPF return goes down when interest rates go up and vice versa. The regression R^2 of 22.2% confirms that a significant amount of IPF's return can be explained by changes in the T-Bill rate. The significant intercept of 1.22% per month also confirms that IPF provides base income from fixed income investments regardless of interest rate changes, which is a fundamental feature of income funds. These results are in line with the theory of fixed income and show that interest rate risk affects IPF's return to a significant degree.

3.6 Recommendations and Implications

Based on the findings of this study, the main recommendation is that investors should choose among the funds according to their risk tolerance, investment horizon, and expectations about stock market and interest-rate movements. The results show that the three funds have different risk-return characteristics and do not react to market conditions in the same way.

For investors who expect stock market recovery and are willing to take higher risk, AML First Mutual Fund may be more suitable. The regression analysis shows that AML has a beta of 0.695 against DSEX and an R^2 of 58.5%, meaning that its return is strongly influenced by stock market movement. Therefore, AML is appropriate for investors seeking long-term capital growth from equity exposure. However, since AML's average monthly return was lower than the monthly T-Bill benchmark. Investors should not treat it as a short-term income-generating option. It is more suitable for investors with a long-term view who can tolerate market volatility.

For investors who want equity exposure with relatively lower sensitivity to broad market movement, Taqwa Growth Fund may be considered. TGF has a lower beta of 0.186 against DSEX and an R^2 of 20.9%, which indicates that it is less affected by overall market fluctuations compared to AML. This lower sensitivity is consistent with its Shariah-compliant investment structure. However, TGF's average monthly return was almost zero and its risk-adjusted performance was weak during the study period. Therefore, investors should choose TGF mainly if they prefer Shariah-compliant equity investment and are willing to accept the possibility of lower return due to limited investment options.

For conservative investors, who are uncertain about the stock market, Income Plus Fund appears to be the most suitable option. IPF generated the highest mean monthly return of 1.07% with a comparatively moderate standard deviation of 1.84%. It performed better than the equity funds on a risk-adjusted basis. However, IPF should not be viewed as a guaranteed-return product. The regression result shows that IPF has a negative beta of -1.591 against changes in the 91-day T-Bill rate. That means its return is affected by interest-rate movements.

The findings also suggest that investors should compare mutual fund returns with the available risk-free return before making investment decisions. During the study period, the average 91-day T-Bill rate was high, while AML and TGF failed to generate sufficient excess return over the risk-free benchmark. This explains the negative Sharpe and Treynor ratios of the equity funds. Therefore, when risk-free instruments offer high returns, conservative investors may prefer IPF or fixed-income alternatives. On the other hand, investors with a longer investment horizon may still consider AML or TGF for future capital appreciation when the equity market improves.

For UCB Asset Management Limited, the main implication is that fund communication should be more evidence-based and investor-specific. The company should clearly position AML as a market-sensitive equity fund, TGF as a Shariah-compliant equity fund with lower market sensitivity, and IPF as an income-oriented fixed-income fund with interest-rate sensitivity. UCBAML should include simple indicators such as beta, correlation, standard deviation, Sharpe Ratio, Treynor Ratio, and T-Bill sensitivity in fund factsheets and investor presentations. This will help investors understand not only how much return a fund generated, but also how much risk was taken to generate that return.

Finally, UCBAML should strengthen its client advisory process by matching each investor's risk profile with the appropriate fund. The company should also educate investors that fixed-income funds are relatively stable but not completely risk-free, while equity funds may underperform in the short term but can offer long-term growth potential.

3.7 Conclusion

Overall, this study provides a holistic view of the three UCBAML funds' performance in different market environments. The elevated interest rate environment in Bangladesh during the period of this study did not favour equity funds. Both AML and TGF had a low average return that was not sufficient to compensate for the risk-free rate. IPF was found to be interest rate sensitive and its performance may decline in a future rate environment. Each of the funds targets a different investor and it's important to understand how they are sensitised to the market when making investment decisions. The findings of this study offer empirical validation of this knowledge in the case of Bangladesh, where there has been limited company-specific research.

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Appendix A: Data Source

Month	AML NAV	AML Return	TGF	TGF Return	DSEX	DSEX Return
Monthly NAV & Returns — AML, Taqwa Growth Fund vs DSEX						
May-2021	10.6700	3.79%			5,990.98	9.33%
Jun-2021	10.6800	0.09%			6,150.48	2.66%
Jul-2021	11.0000	3.00%			6,425.25	4.47%
Aug-2021	11.1200	1.09%			6,869.24	6.91%
Sep-2021	11.3900	2.43%			7,329.03	6.69%
Oct-2021	11.1000	-2.55%			7,000.94	-4.48%
Nov-2021	11.2600	1.44%			6,703.25	-4.25%
Dec-2021	11.3200	0.53%			6,756.65	0.80%
Jan-2022	11.4800	1.41%			6,926.29	2.51%
Feb-2022	11.4700	-0.09%			6,739.44	-2.70%
Mar-2022	11.2000	-2.35%			6,757.83	0.27%
Apr-2022	11.2200	0.18%	10.0100		6,655.66	-1.51%
May-2022	10.8000	-3.74%	9.9800	-0.30%	6,392.85	-3.95%
Jun-2022	10.7800	-0.19%	10.0000	0.20%	6,376.94	-0.25%
Jul-2022	9.8500	-8.63%	9.9600	-0.40%	6,133.96	-3.81%
Aug-2022	9.9800	1.32%	10.0200	0.60%	6,457.22	5.27%
Sep-2022	10.0900	1.10%	10.1000	0.80%	6,515.11	0.90%
Oct-2022	10.0700	-0.20%	10.1100	0.10%	6,307.34	-3.19%
Nov-2022	10.1400	0.70%	10.1300	0.20%	6,235.95	-1.13%
Dec-2022	10.2000	0.59%	10.1900	0.59%	6,206.81	-0.47%
Jan-2023	10.2000	0.00%	10.2000	0.10%	6,267.05	0.97%
Feb-2023	10.2400	0.39%	10.2100	0.10%	6,216.95	-0.80%
Mar-2023	10.3000	0.59%	10.2500	0.39%	6,206.80	-0.16%
Apr-2023	10.3200	0.19%	10.0100	-2.34%	6,262.69	0.90%
May-2023	10.3400	0.19%	10.0200	0.10%	6,339.74	1.23%
Jun-2023	10.3200	-0.19%	10.0500	0.30%	6,344.09	0.07%
Jul-2023	10.0800	-2.33%	10.0500	0.00%	6,324.81	-0.30%
Aug-2023	10.1900	1.09%	10.0900	0.40%	6,299.50	-0.40%
Sep-2023	10.1100	-0.79%	10.1000	0.10%	6,284.63	-0.24%
Oct-2023	10.1100	0.00%	10.1600	0.59%	6,278.66	-0.09%
Nov-2023	10.1000	-0.10%	10.1800	0.20%	6,223.03	-0.89%
Dec-2023	10.1200	0.20%	10.2100	0.29%	6,246.50	0.38%
Jan-2024	10.3500	2.27%	10.3000	0.88%	6,153.34	-1.49%
Feb-2024	10.2100	-1.35%	10.1400	-1.55%	6,254.54	1.64%
Mar-2024	9.2900	-9.01%	9.8700	-2.66%	5,829.70	-6.79%
Apr-2024	9.0000	-3.12%	9.7700	-1.01%	5,584.65	-4.20%
May-2024	8.5000	-5.56%	9.4700	-3.07%	5,251.96	-5.96%
Jun-2024	8.9300	5.06%	9.8300	3.80%	5,328.40	1.46%
Jul-2024	8.9800	0.56%	9.7900	-0.41%	5,280.47	-0.90%
Aug-2024	10.6500	18.60%	10.4800	7.05%	5,804.42	9.92%
Sep-2024	10.6200	-0.28%	10.4700	-0.10%	5,624.50	-3.10%
Oct-2024	10.2500	-3.48%	10.3600	-1.05%	5,199.40	-7.56%
Nov-2024	10.1800	-0.68%	10.3800	0.19%	5,192.59	-0.13%
Dec-2024	10.2700	0.88%	10.4900	1.06%	5,216.44	0.46%
Jan-2025	10.1700	-0.97%	10.3200	-1.62%	5,112.90	-1.98%
Feb-2025	10.2600	0.88%	10.3800	0.58%	5,247.30	2.63%
Mar-2025	10.2200	-0.39%	10.4200	0.39%	5,219.16	-0.54%
Apr-2025	10.1000	-1.17%	10.4800	0.58%	4,917.92	-5.77%
May-2025	9.9100	-1.88%	10.4400	-0.38%	4,637.92	-5.69%
Jun-2025	10.2500	3.43%	10.5400	0.96%	4,838.39	4.32%
Jul-2025	10.9900	7.22%	10.2200	-3.04%	5,443.42	12.50%
Aug-2025	10.9500	-0.36%	10.2500	0.29%	5,594.39	2.77%
Sep-2025	10.6400	-2.83%	10.1000	-1.46%	5,415.79	-3.19%
Oct-2025	10.2600	-3.57%	9.8900	-2.08%	5,122.22	-5.42%
Nov-2025	10.2800	0.19%	9.8200	-0.71%	4,978.77	-2.80%
Dec-2025	10.0400	-2.33%	9.6400	-1.83%	4,865.34	-2.28%
Jan-2026	10.7800	7.37%	9.8600	2.28%	5,154.31	5.94%
Feb-2026	11.5000	6.68%	9.9900	1.32%	5,600.27	8.65%

Income Plus Fund — Monthly NAV & Returns vs T-Bill Rate				
Month	**IPF NAV (BDT)**	**IPF Monthly Return (%)**	**Change in T-Bill Rate**	**T-Bill Rate (%)**
Jul-2023	10.0400		0.51%	7.35%
Aug-2023	10.1054	0.65%	0.02%	7.37%
Sep-2023	10.1560	0.50%	-0.06%	7.31%
Oct-2023	10.2243	0.67%	1.69%	9.00%
Nov-2023	10.3040	0.78%	1.05%	10.05%
Dec-2023	10.3652	0.59%	0.97%	11.02%
Jan-2024	10.4314	0.64%	0.26%	11.28%
Feb-2024	10.5224	0.87%	0.09%	11.36%
Mar-2024	10.5963	0.70%	0.00%	11.37%
Apr-2024	10.6737	0.73%	-0.02%	11.35%
May-2024	10.7727	0.93%	0.17%	11.52%
Jun-2024	10.8535	0.75%	0.13%	11.65%
Jul-2024	10.9372	0.77%	0.00%	11.65%
Aug-2024	11.0432	0.97%	-0.05%	11.60%
Sep-2024	11.1325	0.81%	-0.08%	11.52%
Oct-2024	11.2475	1.03%	0.08%	11.60%
Nov-2024	11.3385	0.81%	0.15%	11.75%
Dec-2024	11.4300	0.81%	-0.16%	11.59%
Jan-2025	11.5465	1.02%	-0.29%	11.30%
Feb-2025	12.2684	6.25%	-0.77%	10.52%
Mar-2025	11.7830	-3.96%	0.06%	10.58%
Apr-2025	11.8925	0.93%	0.89%	11.48%
May-2025	12.1418	2.10%	0.14%	11.62%
Jun-2025	12.1384	-0.03%	0.45%	12.07%
Jul-2025	12.9311	6.53%	-0.99%	11.08%
Aug-2025	13.1640	1.80%	-0.91%	10.17%
Sep-2025	13.6449	3.65%	-0.17%	10.00%
Oct-2025	13.6313	-0.10%	-0.46%	9.54%
Nov-2025	13.3831	-1.82%	0.59%	10.13%
Dec-2025	13.4521	0.52%	0.35%	10.48%
Jan-2026	13.7363	2.11%	-0.30%	10.18%
Feb-2026	13.9051	1.23%	0.01%	10.19%

Appendix B: Excel Calculation

B.1 Regression of AML vs DSEX

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.764530978
R Square	0.584507617
Adjusted R Square	0.57708811
Standard Error	0.025157802
Observations	58

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.049860946	0.049861	78.77984738	0.000000000002865
Residual	56	0.035443239	0.000633		
Total	57	0.085304185			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.00177629	0.003304826	0.537484	0.593062985	-0.004844071	0.008396652	-0.004844071	0.008396652
DSEX Return (%)	0.69542419	0.078350582	8.875801	0.000000000	0.538469114	0.852379266	0.538469114	0.852379266

RESIDUAL OUTPUT

Observation	*Predicted AML Return (%)*	*Residuals*
1	0.0666749	-0.0287372
2	0.020290817	-0.0193536
3	0.032844061	-0.0028815
4	0.049830667	-0.0389216
5	0.048324247	-0.0240437
6	-0.02935494	0.00389401
7	-0.027794143	0.04220856
8	0.007316238	-0.0019876
9	0.019236387	-0.0051021
10	-0.016984115	0.01611304
11	0.003673904	-0.0272136
12	-0.00873766	0.01052337
13	-0.025683711	-0.0117494
14	4.55757E-05	-0.0018974
15	-0.024721398	-0.0615495
16	0.03842518	-0.0252272
17	0.008010878	0.00301117
18	-0.020401122	0.01841896
19	-0.006094909	0.01304625
20	-0.001473361	0.00739052
21	0.008525708	-0.0085257
22	-0.003783064	0.00770463
23	0.000640918	0.00521846
24	0.008038335	-0.0060966
25	0.010332108	-0.0083941
26	0.002253454	-0.0041877
27	-0.000337138	-0.0229187
28	-0.00100659	0.01191929
29	0.000134738	-0.0079856
30	0.001115681	-0.0011157
31	-0.004385287	0.00339617
32	0.004399065	-0.0024189
33	-0.008595233	0.03132251
34	0.013213482	-0.0267401
35	-0.045460439	-0.0446473
36	-0.027455694	-0.0037607
37	-0.039651673	-0.0159039
38	0.011897888	0.03869035
39	-0.004479186	0.01007829
40	0.070779145	0.11518967
41	-0.01977982	0.01696292
42	-0.050783906	0.01594398
43	0.000865447	-0.0076947
44	0.004970432	0.00387043
45	-0.012027035	0.00228994
46	0.020056525	-0.011207
47	-0.001953101	-0.0019455
48	-0.038362273	0.02662059
49	-0.037817435	0.01900555
50	0.031835387	0.00247339
51	0.088737552	-0.0165424
52	0.021063465	-0.0247031
53	-0.020425015	-0.0078855
54	-0.03592009	0.0002058
55	-0.017699367	0.01964868
56	-0.014067375	-0.0092789
57	0.043080028	0.03062515
58	0.061945619	0.00484473

B.2 Regression of TGF vs DSEX

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.456950749
R Square	0.208803987
Adjusted R Square	0.19082226
Standard Error	0.015080343
Observations	46

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.002640765	0.002640765	11.61200927	0.001411223
Residual	44	0.010006337	0.000227417		
Total	45	0.012647102			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.000635624	0.002229192	0.285136294	0.77687763	-0.003857018	0.005128266	-0.003857018	0.005128266
DSEX Return (%)	0.185604093	0.054467051	3.407639838	0.001411223	0.075832964	0.295375221	0.075832964	0.295375221

RESIDUAL OUTPUT

Observation	*redicted TGF Return (*	*Residuals*
1	-0.006693268	0.003696265
2	0.000173707	0.001830301
3	-0.006436433	0.002436433
4	0.010416969	-0.00439287
5	0.002299594	0.005684438
6	-0.00528338	0.006273479
7	-0.001465147	0.003443387
8	-0.000231687	0.006154688
9	0.002436998	-0.00145564
10	-0.000848131	0.001828523
11	0.0003326	0.003585127
12	0.002306922	-0.02572156
13	0.002919115	-0.00192011
14	0.000762976	0.002231036
15	7.15637E-05	-7.1564E-05
16	-0.000107108	0.004087208
17	0.000197504	0.000793576
18	0.000459312	0.005481283
19	-0.00100886	0.002977364
20	0.001335625	0.00161133
21	-0.002132467	0.010947354
22	0.003688134	-0.01922211
23	-0.011971545	-0.01465567
24	-0.007166199	-0.00296551
25	-0.010421224	-0.02028502
26	0.003337011	0.034677773
27	-0.001033921	-0.00303525
28	0.019052027	0.051428055
29	-0.005117559	0.004163361
30	-0.013392343	0.002886135
31	0.000392526	0.001537976
32	0.001488119	0.009109184
33	-0.003048392	-0.01315752
34	0.005514497	0.000299457
35	-0.000359726	0.004213291
36	-0.010077092	0.015835249
37	-0.009931678	0.006114884
38	0.008658197	0.000920347
39	0.023845006	-0.05420554
40	0.005783242	-0.00284782
41	-0.005289757	-0.00934439
42	-0.00942529	-0.01136679
43	-0.0045623	-0.00251556
44	-0.003592945	-0.01473699
45	0.011659317	0.01116226
46	0.016694417	-0.00350983

B.3 Regression of IPF vs Change in T-Bill rate

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.471122379
R Square	0.221956296
Adjusted R Square	0.195127203
Standard Error	0.016739515
Observations	31

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.00231818	0.002318	8.272970477	0.007469535
Residual	29	0.008126129	0.00028		
Total	30	0.01044431			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.012184399	0.003048949	3.996262	0.000404145	0.005948598	0.018420199	0.005948598	0.018420199
Change in T-Bill Rate	-1.590459676	0.552957719	-2.87628	0.007469535	-2.721385194	-0.459534157	-2.721385194	-0.459534157

RESIDUAL OUTPUT		
Observation	*ed IPF Monthly Retı*	*Residuals*
1	0.01194583	-0.005431886
2	0.013098913	-0.008091689
3	-0.014734131	0.02145922
4	-0.004515428	0.012310582
5	-0.00324306	0.009182501
6	0.008128727	-0.001741971
7	0.010792747	-0.002069085
8	0.012104876	-0.005081763
9	0.012462729	-0.005158293
10	0.009480617	-0.000205483
11	0.010116801	-0.00261636
12	0.012216208	-0.00450441
13	0.013027342	-0.003335648
14	0.013440862	-0.005354438
15	0.010848413	-0.000518298
16	0.009797119	-0.001706432
17	0.014798796	-0.006728946
18	0.016773193	-0.006580717
19	0.024509268	0.038011842
20	0.011189169	-0.05075423
21	-0.002045444	0.011338493
22	0.00992197	0.011040822
23	0.004981207	-0.005261231
24	0.027970506	0.037334641
25	0.026613447	-0.008602605
26	0.014890964	0.021640486
27	0.019551408	-0.020548117
28	0.002752973	-0.020961068
29	0.006658029	-0.001502272
30	0.016987508	0.004139305
31	0.011991556	0.000297052

B.4 Expense Ratio of IPF calculation

Opening Net Assets (2024) = 1,657,981,851		Now Total Operating Expenses:		
Closing Net Assets (2025) = 2,546,045,320		From the Income Statement:		21,185,667
Average Net Assets:				
2,102,013,586				
So expense ratio	1.01%			

B.5 Net Profit Margin of IPF calculation

FY2025	Interest Income	241,966,665
	Net Gain on Sale	1,725,273
	Unrealized Gain	32,328,290
	Total Income	276,020,228
FY2024	Interest Income	97,023,797
	Net Gain on Sale	601,604
	Unrealized Gain	0
	Total Income	97,625,401

B.6 Expense Ratio of AML calculation

Opening Net Assets (FY2024 Closing Equity) = 179,781,591			
Closing Net Assets (FY2025 Closing Equity) = 209,497,773			
Average Net Asset	194639682	Total Operating Expense	5663733
Expense Ratio	2.91%		

B.7 Expense Ratio of TGF calculation

Opening Net Assets (FY2024) = BDT 345,873,590			
Closing Net Assets (FY2025) = BDT 227,918,009			
Average Net Asset	286895799.5	Total Operating Expense	8170686
Expense Ratio	2.85%		

Appendix C: T-Bill Rate Over The Time