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Factors affecting investment in Shariah compliant mutual funds

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FACTORS AFFECTING INVESTMENT IN SHARIAH COMPLIANT MUTUAL FUNDS

This Research Project is submitted to the Department of Finance as partial fulfillment of Master of Science in Islamic Banking & Finance degree

by

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Department of Accounting & Law

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Abstract

In Pakistan, Mutual Funds are becoming one of the preferred investments for those investors who don't have expertise to efficiently manage their wealth and reduce tax liabilities associated with their profit. Businesses invest in mutual funds to reduce their corporate tax liability and individual investors invest in mutual funds to maintain value of money against inflation with tax rebate benefit.

Mutual Funds play vital role in the economic development of a country. Its active involvement can be witnessed through the dominant presence in the fixed income as well as overall capital markets. Mutual funds are very active in the stock markets by way of ensuring stability as a supplier of large funds through steady absorption of floating stocks.

Mutual Fund industry was started with the setting up of National Investment Unit Trust in 1962 by the Government of Pakistan. It monopolized the market till 1983 after which, considerable growth was seen by entry of many private sector institutions in this industry. Currently, there are 20 Asset management companies in Pakistan with more than 346 schemes; including dedicated and pension funds, which are working in mobilizing the funds of investors for investment purposes.

By increasing awareness and gaining investor's confidence, Mutual Funds have long played an important role in the performance of capital markets. This helped gradually counter the critics of market depth, as new entrants aided diversity to investment outlook. The aim of this study is to examine the factors affecting investment in shariah compliant mutual funds in Pakistan. These factors examine the relationship between risk and the return, impact of change in interest rate and inflation rate and change in cash flows on asset allocation, overall performance and growth of the fund.

Keywords: AMC - Asset Management Company, AUM - Asset Under Management, SECP - Securities and Exchange Commission of Pakistan, MUFAP - Mutual Funds Association of Pakistan, KSE - Karachi Stock Exchange, KMI - KSE Meezan Index, KIBOR - Karachi interbank offered rate

Chapter 1

Introduction to Mutual Fund

Mutual fund is a scheme structured by asset management companies (AMCs) under the guidelines of Securities and Exchange Commission of Pakistan (SECP) that offers investors to pool their wealth under and under the management of specialized fund managers.

Asset Management Companies offer multiple schemes that cater to different investment objectives of investors according to their risk appetite and required rate of return.

Investors have the opportunity of take investment exposure in a diversified pool of securities with a minimum amount without any binding of holding period.

1.1 Types of Mutual Funds

Based on the structure, there are two main types of Mutual funds.

1. Open Ended
2. Close Ended

1. Open Ended Funds

In open ended funds, there is no concept of authorized and paid-up capital. AMC doesn't have any cap on issuance of units against investments. Open ended funds can buy and sell directly from AMC and their designated agents/distributors.

2. Close Ended Funds

Close ended funds initial launch through an Initial Public Offering (IPO) but after the IPO, the investor can buy and sell from the Stock exchange at the prevailing market rate. In closed ended funds, issued size of the scheme is restricted.

1.2 Categories of Mutual Funds

1.2.1 Equity Fund

The primarily focus to earn inflation adjusted return through investment in equity securities with the aim for maximum capital appreciation over the long term. As per regulations, it is mandatory for an equity fund to maintain a daily average exposure of 70% of net assets in equities on a quarterly average basis (calculated daily).

1.2.2 Index Tracker Fund

It tracks composition of securities listed on an index by reducing tracking error to the maximum extent possible while offering similar return to the investors. As per regulation, index funds must

stay invested at a daily average of 85% of net assets in equities on monthly average basis (calculated daily).

1.2.3 Asset Allocation Fund

This type of fund can diversify its exposure in multiple asset classes as per defined exposure limits in the fund's offering document.

1.2.4 Balanced Fund

This fund creates an optimum composition of bonds and stocks, thereby striking the right balance between equity and debt securities.

1.2.5 Income Fund

Income Funds invest in medium to long term money market and debt instrument based on interest rate outlook of the fund manager. The fund strives to offer a steady stream of fixed income to its unit holders.

1.2.6 Aggressive Income Fund

These invest in medium to low rated debt instruments to generate high returns within fixed income securities.

1.2.7 Money Market Fund

These generate reasonable returns with low risk and provide liquidity by investing in money market instruments. These are mainly designed to address and cater to short term liquidity management.

1.2.8 Capital Protected Fund

These funds guarantee the initial principal amount with any capital gain which may accrue at the end of a specified period by applying the Constant Proportion Portfolio Insurance (CPPI) or Net present value (NPV) model.

1.2.9 Fund of Funds

Under this structure, these funds invest in multiple other funds to offer exposure of different category of funds under one product.

Regulations allow the offering of all these funds in both conventional and shariah compliant categories.

Following table gives a brief overview about mutual funds' investments and compositions.

Table 1: Asset Allocation of Core Funds

Details Of Investments	Money Market	Income	Balanced	Equity	Asset Allocation
Cash/T-Bills less than 90 days maturity	0%-100%	25%-100%	10%-70%	0%-30%	10-100%
Govt. Securities/ TDRs / Money Market Placements including COD/ COM/ Reverse Repo, Commercial Paper	0%-100%	0% - 75%	0% - 60%	No	0-90%
CFS/ spread transactions	No	0% - 40%	0% - 25%	No	0-40%
TFCs/ Sukuks	No	0% - 75%	0% - 60%	No	0-90%
Listed Equities	No	No	30%-70%	At least 70% on average	0-90%
Minimum Credit Rating Instrument	AA	BBB-	A-	Not Applicable	BBB-
Minimum Credit Rating Bank/ DFI	AA	BBB-	AA-	Not Applicable	BBB-
Minimum Credit Rating NBFC/ Modarba	AAA	BBB-	AA	Not Applicable	BBB-
Time to Maturity of a single asset	Max 6 Months	No limit on time to maturity	Not Applicable	Not Applicable	No limit on time to maturity
Weighted Average Time to Maturity of Fund	Max 90 Days	Max 4 years excluding Govt Securities	Max 2 years (of non-equity assets)	Not Applicable	Max 4 years excluding Govt. Securities (of non-equity assets)

1.2.10 Shariah Compliant Mutual Funds

The global development in Islamic Banking and Financial by leaps and bounds has created a demand for Shariah Compliant products in different financial markets. The mutual fund market has also experienced a similar level of demand gap and has designed mutual fund investment products to cater to this growing demand. These funds are like conventional mutual funds except that they require certain conditions to be met as defined in Islamic Financial rules. In order to be qualify as a part of the Islamic portfolio, a stock of a company requires to fulfil stock screening

criteria constituted by Karachi Meezan Index 30 (KMI 30). This stock screening criterion consist of six conditions. First, the core business of the investee company should be Halal for e.g., Automobile, Manufacturing, Textile etc. In addition, the interest-bearing debt (e.g., Bonds, TFC's, Commercial Paper, Conventional Bank loans, Finance Lease etc.) to asset ratio should be less than 37 %. Also, Non-Compliant Investment (e.g., Investment in T-Bills, PIBs, Conventional Mutual Funds, Conventional Money Market Instrument, etc.) to total asset ratio should be less than 33%. Further, Non-Compliant Income (e.g., Income from gambling, income from interest-based transactions, income from Gharar based transactions i.e., derivatives, insurance claim reimbursement from a conventional insurance company, any penalty charged on late payment in credit sale etc.) to Total Revenue (Gross revenue + any other income by the company) ratio should be less than 5%. Illiquid Asset (e.g., Inventory of raw material, work in process, all fixed asset, stock in trade etc.) to Total Asset ratio should be at least 25%. Finally, Market price per share should be at least equal to or greater than net liquid asset per share.

Chapter 2

Literature Review

There is extensive research on mutual funds all over the world but in Pakistan there is a great potential for research in this area. For deciding the various parameters to conduct the present study, an intensive review of the research work and other published literature available on mutual funds was made. It helped us to establish a gap between present and future research.

For the developed economies, a number of scholars have empirically investigated the link between open-ended fund performance and its qualities over various time periods. William F. Sharpe (1966) gave a measure for evaluation of the performance of a portfolio that was a risk adjusted measure in which the risk free return was adjusted over the risk free rate by standard deviation of returns. Jack L. Treynor suggested a new measure of the performance of mutual funds, which was based on modern portfolio theory. This measure includes systematic risk. Michael C. Jensen (1967) considered contributions of funds manager ability to forecast funds return to evaluate the performance of mutual fund. In this model he measured extra return over the expected return. The premium was for the systematic risk. Eugene F. Fama (1972) suggested a measure which incorporate all the risks in an investment. He then further segregated these risks, and calculated the impact of each risk on the return. According to Freeman and Brown (2001) and Ang et al (1998) Mutual fund advisory and management fee is high which create concern of conflict between the Mutual Fund board and asset management and such increase in fund Management fee negatively affects the investor's motivation. S. Nargah Rao (2002) evaluated the performance of Indian mutual fund in a bear market. He used Relative performance index, Treynor's Ratio; Risk and Return Analysis, Sharpe Ratio, Fama's measure and Jensens's measure. According to his conclusions medium term, Debt funds were best performing funds.

The link between the fund's net asset and its return may be used to assess the impact of fund size on its return. According to previous research, the smaller the fund, the higher its operational efficiency. It was discovered that the lowest quartile of US fund size outperformed the other quartiles. The lowest quartile exhibited substantial positive rates of return, as judged by the Jensen Abnormal Performance Index at a 90% significant level, according to the result. Gorman (1991) evaluated small mutual funds perform marginally better than large mutual funds in terms of net assets. These findings suggest that mutual funds soon exhaust economies of scale, resulting

in lower returns. According to these studies, Soderlind et al. (2000) analysed the link between fund performance and fund size in the Swedish market, and it has been found that smaller equity funds produce higher success.

Many scholars have been interested in the constancy of managerial effectiveness. According to the efficient market hypothesis, fund managers should not be able to continuously create positive fund returns over time. The yearly fund returns of US funds were examined, and it was discovered that returns are serially associated with time, refuting the efficient market hypothesis. This research also shows that mutual fund success in the past might be a key factor in predicting future fund results.

Many mutual fund performance studies suggest that actively managed funds do not provide enough returns to pay their costs. As a result, the negative link between fund returns and fund expenditures is one of the most obvious conclusions from past studies. The importance of costs in open-ended funds has also been highlighted by Livingston and O'Neal (1998). Elton et al. (1993) looked at the returns of US mutual funds and discovered that the performance is inversely connected to the amount of fee ratios. Droms and Walker (1995) looked at load, another type of expenditure, by looking at foreign mutual funds by using a combined cross-sectional/time serial regression model to see if load/no-load condition, asset size, expense ratios, and turnover were associated to insensitive and risk-adjusted returns. While using unmodified and risk-adjusted returns, there was no improvement in outcomes between no-load and load funds. McLeod and Mathotra (1995) looked at 12B-1, another type of mutual fund charge, and found that fund managers justify these costs by increasing returns.

A great number of studies have focused on US mutual funds, but the mutual fund business in other emerging nations has just lately caught the interest of scholars. Ramasamy et al. (2003) investigated the relative relevance of several criteria in financial advisers' selection of mutual funds in Malaysia, concluding that consistent previous performance, fund size, and trading costs were the three most important variables in determining investment returns. Narayan (2003) investigated the effectiveness of Indian mutual funds and concluded that, on average, trusts were able to meet investors' expectations by providing excess returns over projected returns based on both systematic risk premium and total risk premium. Furthermore, Mukul and Amarendu (2006)'s study of the Indian pension fund sector stated that India's provident and pension funds need to be more professional and have a better system-wide viewpoint.

Morningstar (2007) gave a method for the evaluation of performance under the Morningstar methodology. Risk adjusted Return which was based on expected utility theory. According to his proposition investor are risk averse so they give up some return in exchange of certain return. Warther (1995) and Ederen and Warner (1999) evaluated the relationship between investment performance and cash flows in and out of mutual funds at the average level of industry. According to his results there is a direct relationship between the investment performance and cash flows into the fund. The underlying cause may be precise or informational effects. Capon, Fitsimons and Prince (1996) evaluated through a survey conducted among investors that past performance is the most important determinant of funds future returns. Berk and Green (2004) evaluated theoretically the relationship between the growth of fund and performance of investment.

Despite the rising interest of academics in mutual funds throughout the world, Pakistan's mutual funds business has been unable to capture their attention, resulting in extremely limited research for the sector. While analyzing the Pakistani mutual fund sector, Cheema and Shah (2006) found that adequate minority investor protection could only be achieved if institutional investors in principle, and mutual funds in specific, play a prominent role in corporate governance.

Lakonishok, Vishny and Shleifer (1992) analyzed the relationship between funds growth and past investment performance. They were of the view that there is a positive correlation between these variables. Kempf, Ber and Ruenzi (2005) study concluded that a fund which constantly perform better and yield higher return will gain the market share and perform up to the mark. Schmidt and Schleef (2001) data from 1997 performed a study in which they calculated the return of the funds which major banks own. According to their results they proved that funds' performance is not effected by ownership of bank as these banks are the agent of funds. So they collect the funds on the bank's behalf and get their commission.

Schooley and Worden (2009) examined the performance of mutual funds. According to the results, wealthy investors do not invest in managed mutual funds but less wealthy investors do invest to get the benefits of diversification and superior information. Ferreira, et. Al (2007) studied the performance of mutual funds using four factor model from 19 countries. According to these results, size of mutual fund do not matter as large funds were better performers. The study also concluded that young funds which invest abroad were also better performers. Rao and Ravindran (2003) studied the performance of mutual funds working in India. They used Treynor Ratio,

Sharpe Ratio, Risk Return Analysis, Fama and French measures and Jensen measures. Sample of 269 mutual funds was studied and the duration of study was from 1998 to 2002. According to their results, majority of funds were able to generate excess return and they were able to satisfy their investors. Afza and Rauf (2009) evaluated the effectiveness of management of open end mutual funds. They evaluated turnover load, liquidity and age. According to their results, investors should see past performance of mutual funds for making a positive return.

Keshwani (2008) evaluated performance of newly introduced mutual funds. He used Treynor (1965), Sharpe (1966) and Jensen (1967). According to his results, these mutual funds of Pakistan produced negative results for the investors.

A brief review of literature reveals that different combination of variables were used by different authors for explaining the performance of mutual funds but there were not many studies relating to the performance evaluation of mutual funds in Pakistan. However, many studies were conducted in foreign countries like USA, India on performance evaluation of mutual funds of the country. This study uses the methodologies adopted by the other authors to produce empirical findings to contribute to literature.

Chapter 3

Research Methodology

3.1 Theoretical Framework

The study focuses on the identification of factors influencing the investment in Islamic Mutual funds. To develop a framework, first step is to decide on factors affecting the investment decision of investors in Mutual Funds that can be retrieved from the global literature and then using data from Pakistan Mutual funds market to develop empirical conclusions.

3.2 Conceptual Framework

Funds usually aim to entice potential investors by referencing their prior performance. Although previous success does not guarantee or even clearly correlate with future performance, it is frequently used as a starting point in the investing decision-making process as claimed by many authors such as (Sharpe ,1966), (Hendricks et al., 1993), (Malkiel, 1995) and (Carhart, 1997).

Returns on a mutual fund is another factor which helps investors to choose to invest in a funds. Returns on a fund is the change in a fund's net asset value, i.e., the market value of securities the fund holds divided by the number of the fund's shares during a given time period, assuming the reinvestment of all income and capital gains distributions and dividing it by the original net asset value

Risk is another factor that derives the decision-making performance of an investor. Investors are interested in not only the returns of funds, but also the risks taken to achieve those returns. Risk can be defined as the uncertainty of the expected return. Higher returns are demanded by investors, and they receive them implying that both risk and uncertainty are intertwined. The common statistical tool to calculate risk is the standard deviation of fund's returns.

Management effectiveness is another factor that investors consider while evaluating their decision of investing in mutual funds. A number of methods are used by investors to evaluate the management effectiveness of a fund. Most used statistical tools used are Sharpe Ratio, Treynor Ratio and Jensen Alpha.

To constitute our results, we use abovementioned factors on our data set and evaluate the performance of selected Islamic mutual funds.

3.3 Data

Islamic mutual funds industry in Pakistan is relatively a new market as compared to the conventional mutual funds market. For this study, the data is comprised of the funds that are older than five years. Sample data is comprised of three money market mutual funds and eight Islamic income funds. The data consist of monthly returns from the period January 2015 to December 2020. The Net Asset value of the funds is collected from the Mutual Funds Association of Pakistan (MUFAP). For Risk free return, 1 Month KIBOR is used which is obtained from State Bank of Pakistan website. KSE-100 Index is used as a market benchmark and monthly index price is collected from Pakistan Stock Exchange website. Table below include the funds included in this study along with the names of asset management company managing these funds.

Table 2: Data

Mutual Fund	Category	Managed by
Al Ameen Islamic Cash Fund	Money Market	UBL Funds
HBL Islamic Money Market Fund	Money Market	HBL Asset Management Limited
Meezan Cash Fund	Money Market	Al Meezan Investment Management Limited
ABL Islamic Income Fund	Income Fund	ABL Asset Management Co. Limited
Al Ameen Islamic Sovereign Fund	Income Fund	UBL Funds
Alfalah GHP Islamic Income Fund	Income Fund	Alfalah GHP Investment Management Limited
Atlas Islamic Income Fund	Income Fund	Atlas Asset Management Limited
Faysal Islamic Savings Growth Fund	Income Fund	Faysal Funds Limited
JS Islamic Income Fund	Income Fund	JS Investment Limited
Meezan Islamic Income Fund	Income Fund	Al Meezan Investment Management Limited
Meezan Sovereign Fund	Income Fund	Al Meezan Investment Management Limited

Chapter 4

Results and Calculations

Funds monthly Net Asset Value (NAV) prices are used to calculate the monthly returns of the funds. Similarly, Market return is calculated by using the monthly index prices of the KSE-100 index monthly return. Six years data from January 2015 to December 2020 is used for the calculations. Calculation is done by using R studio Performance Analytics package. Descriptive statistics of the data is given below.

Table 3: Descriptive Statistics (Monthly Returns in %)

	Min	Q1	Median	Mean	Q3	Max
KSE.100	-23.04	-2.9775	0.125	0.1131	4.1975	16.69
1 Month KIBOR	6.21	6.287	6.98	8.168	9.265	13.81
Al Ameen Islamic Cash Fund	0.26	4.582	5.085	6.305	7.793	12.3
HBL Islamic Money Market Fund	0.41	4.128	5.06	6.014	7.265	12.33
Meezan Cash Fund	0.13	4.272	5.11	6.326	7.88	21.34
ABL Islamic Income Fund	3.35	4.73	6.015	6.941	8.815	13.71
Al Ameen Islamic Sovereign Fund	-1.59	3.973	5.905	6.11	8.158	15.45
Alfalah GHP Islamic Income Fund	0.22	4.395	5.885	6.272	7.935	13.24
Atlas Islamic Income Fund	2.67	4.815	5.705	6.782	8.28	13.23
Faysal Islamic Savings Growth Fund	2.99	4.683	6.51	6.589	8.182	12.53
JS Islamic Income Fund	11.71	3.8	5.47	5.608	8.512	16.77
Meezan Islamic Income Fund	1.04	4.68	6.125	6.645	8.377	13.29
Meezan Sovereign Fund	1.43	4.125	5.95	6.629	9.408	20.19

Based on the results above, Meezan Cash Fund, Meezan Sovereign Fund and JS Islamic Income Fund are the three funds which outperformed the KSE 100 Index maximum return of 16.69 % and 1 Month KIBOR of 13.81%. Appendix (i) graphs represent the returns of other funds involve in our sample.

To evaluate the overall performance, other statistical methods are used in this study. The risk and return relationship can be evaluated using standard deviation. Standard deviation of funds and market returns can be calculated by using the following equation:

$$\text{Standard Deviation of Returns} = \delta_{\text{Returns}} = \sqrt{\frac{\sum (R_t - \bar{R})^2}{T}}$$

here,

R_t = Returns at month t

\bar{R} = Mean Returns and T is the total number of months

The next tool is used in the study is Sharpe Ratio. It is the most commonly used measure of risk adjusted performance. Sharpe Ratio is calculated by using the following formula:

$$\text{Sharpe Ratio} = \frac{\text{Average excess return of a Fund}}{\text{Standard Deviation of Fund's excess return}}$$

The Sharpe Ratio is based on the risk-reward trade-off. A high Sharpe Ratio indicates that the fund provides a high level of return for its level of volatility.

Next tool used in the study is Treynor Ratio which is also a measure of risk adjusted performance and a slight variation of Sharpe ratio. Treynor Ratio is calculated by using the following equation:

$$\text{Treynor Ratio} = \frac{\text{Average excess return of a Fund}}{\text{Systematic Risk } (\beta)}$$

Jensen Alpha is the next measure of risk adjusted performance used in this study. Jensen's, the second parameter of the CAPM model, indicates whether the portfolio manager is better or worse at stock selection than the market. An inferior manager has a Jensen's α that is significantly negative, while a superior manager obtains a positive value of α . The Jensen's α can be estimated empirically from a time series of the historical returns on a given investment and the historical returns on the market portfolio. The most common way to estimate alpha is a linear regression of the excess return of the given portfolio on the excess return of the market portfolio, where beta is the slope of the regression line:

$$R_p - R_f = \alpha + \beta(R_m - R_f)$$

4.1 Results

Following table represent the results of the calculation.

Table 4: Results

	Standard Deviation	Sharpe Ratio	Treynor Ratio	Jensen's alpha
Al Ameen Islamic Cash Fund	0.02647363	-0.007036667	0.06236419	0.06307748
HBL Islamic Money Market Fund	0.02687595	-0.00801553	0.05732612	0.06020195
Meezan Cash Fund	0.03064428	-0.006010548	0.07136201	0.06328244
ABL Islamic Income Fund	0.02669837	-0.00459641	0.07068615	0.06941311
Al Ameen Islamic Sovereign Fund	0.03328884	-0.006181418	0.06942014	0.0611625
Alfalah GHP Islamic Income Fund	0.02887494	-0.00656644	0.06399076	0.06276727
Atlas Islamic Income Fund	0.02657274	-0.00521608	0.06966644	0.06788183
Faysal Islamic Savings Growth Fund	0.0243578	-0.00648241	0.0798636	0.06594066
JS Islamic Income Fund	0.04816095	-0.00529936	0.04694184	0.05621437
Meezan Islamic Income Fund	0.02897273	-0.005227617	0.06813585	0.06643998
Meezan Sovereign Fund	0.04237556	-0.003613849	0.07375877	0.06631516

Chapter 5

Conclusion

Mutual Funds industry in Pakistan is still struggling to maximize its market share against total size of bank deposits mainly due to lack of awareness, stringent regulatory framework and restricted product mix. Sometimes, these inefficiencies become an opportunity for the investors or sometimes weaknesses and vice versa. We find that few categories underperform in comparison with inflation or real interest rate and stock market, which is not surprising given the evidence in other from across the world.

We have also found that standard deviation is not very high because money market funds have to maintain its weighted average maturity of underlying assets within 90 days maturity. The category carries less interest rate risk. On the other hand, Income funds carry slightly higher interest rate risk because it mainly invests in medium to long term debt securities. Its weighted average maturity is comparatively high but fund manager manages its weighted average maturity based on his interest rate outlook to mitigate interest rate risk to the maximum extent.

Secondly, another important factor is, in equities, fund managers have bundle of choices within permissible equity securities. As per theory of portfolio manager, fund manager normally manages entire portfolio within 15 to 20 securities but every portfolio has a niche to differentiate with the performance of equity fund of other AMC. The core portfolio would be more or less same to track the benchmark but there will be some second tier equity securities to generate ALPHA. On the other hand, in money market and income fund, fund managers have an opportunity to differentiate with expense ratio because other shariah compliant debt instruments and to some extent rates of saving deposits would be same. Therefore, standard deviation is under limited range.

Then we have Sharp Ratio. The average Sharp Ratio will be high when interest rate is on declining trend because medium to long term exposure in government and corporate debt instruments offer premium without taking additional risk and vice versa. Sharp ratio is within the range of -0.3% to -0.8% in long term which is quite decent for money market and debt funds because both categories are managing maximum portion of the portfolio in risk free sovereign debt securities. Therefore, excess return would generate under from trading gain while staying under the same securities.

Then we have Treynor Ratio. In mutual funds, we have multiple factors that directly impact on performance and cash flows. Mainly, interest rate is the key factor that directly impacts the Treynor Ratio but sometimes changes in taxes and changes in key economic indication like foreign reserves, current account deficit or month on month inflation rate will affect the performance of mutual funds. The average Treynor Ratio is high because of frequent changes in interest rate environment in Pakistan.

Then we have Jensen's Alpha Ratio. As expected, it is comparatively high mainly because of unavailability of comparative benchmark rates. In Shariah Compliant Money Market and Income Fund, we can benchmark rates published by Mutual Fund Association of Pakistan on Monthly Basis. The rates are very basic and it can be obtained from different banks on saving deposits without disclosing the amount and the holding period.

Secondly, the historical return of all these products is different because it is mainly driven on the market view of Fund Manager.

In our overall study, performance of equity funds is solely dependent on the expertise, experience and resources of equity fund management and research team but sometimes unexpected cash flows would hurt the investment strategy of fund manager. In money market and income funds, conventional funds are not hindered by unexpected inflows because they have an option to deploy the cash in Treasury Bills at any point in time, however, shariah compliant funds are faced with dire issues due to cash flows as there are restricted investment opportunities in the Pakistani market.

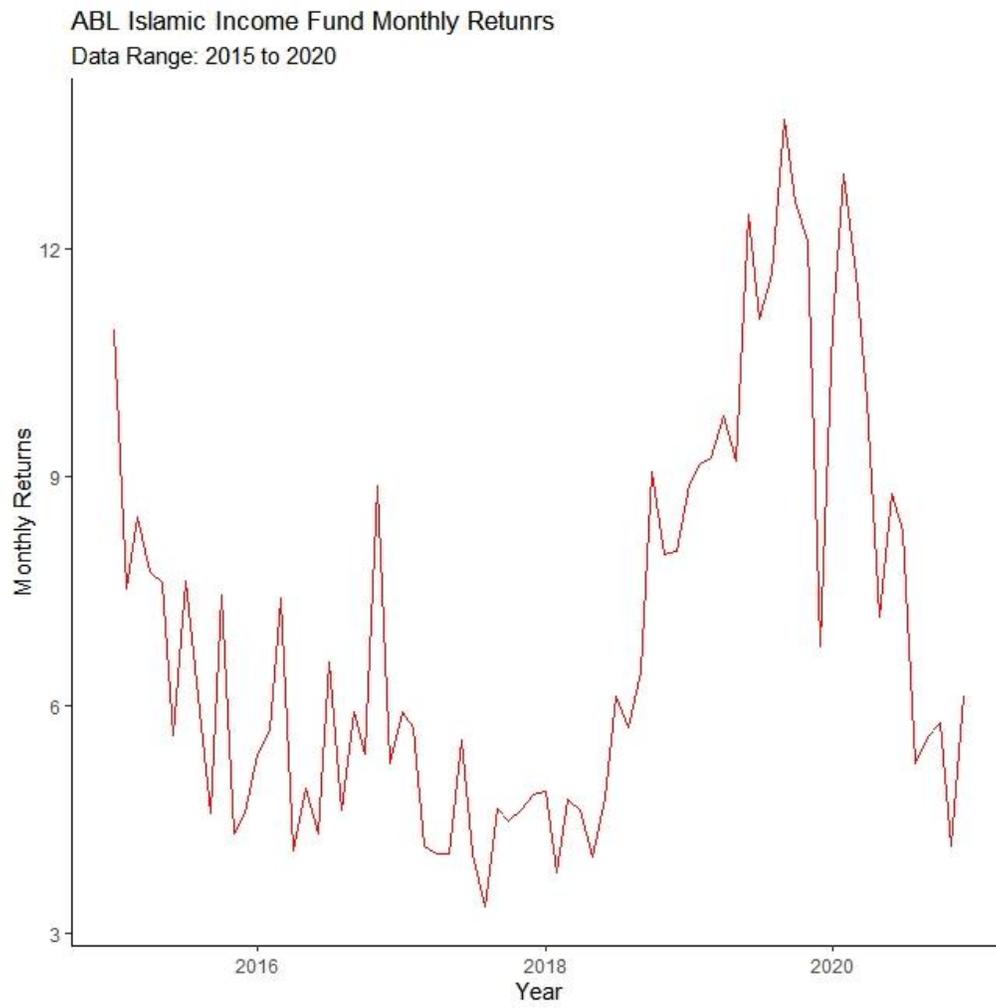
Secondly, change in interest rate doesn't directly pass on the impact of change to investors. Islamic Banks take maximum benefit of these changes and pass on the actual impact at a much later stage, thus benefiting extremely well on the back of restricted investment options for the investors. We have also witnessed the major gap in performance of Shariah Compliant Money Market Funds and Conventional Money Market Funds. Although, both products have similar investment guideline, but Shariah Compliant money market funds don't have ordinary option like treasury bills to avoid opportunity loss in case of unexpected cash flows.

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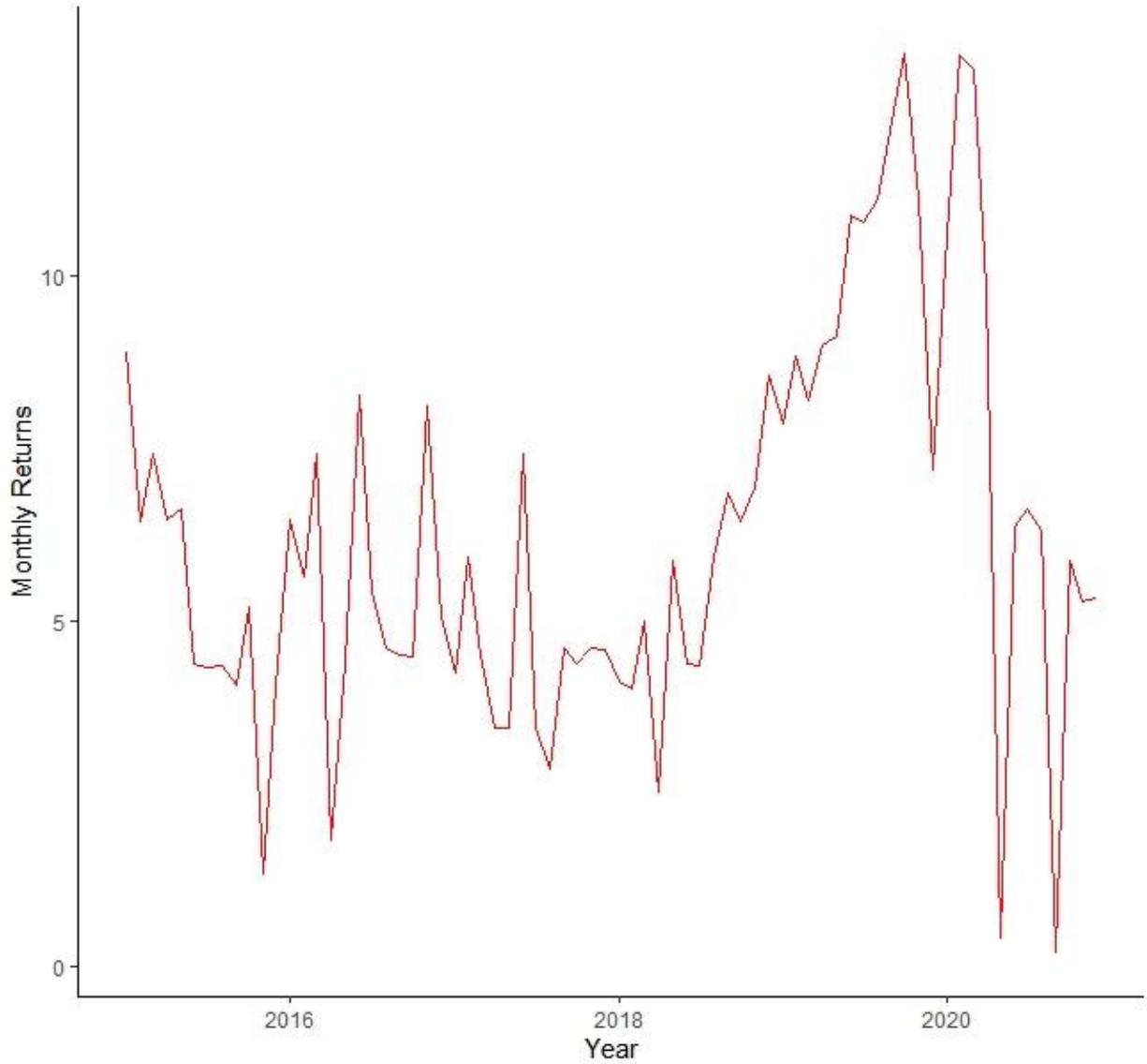
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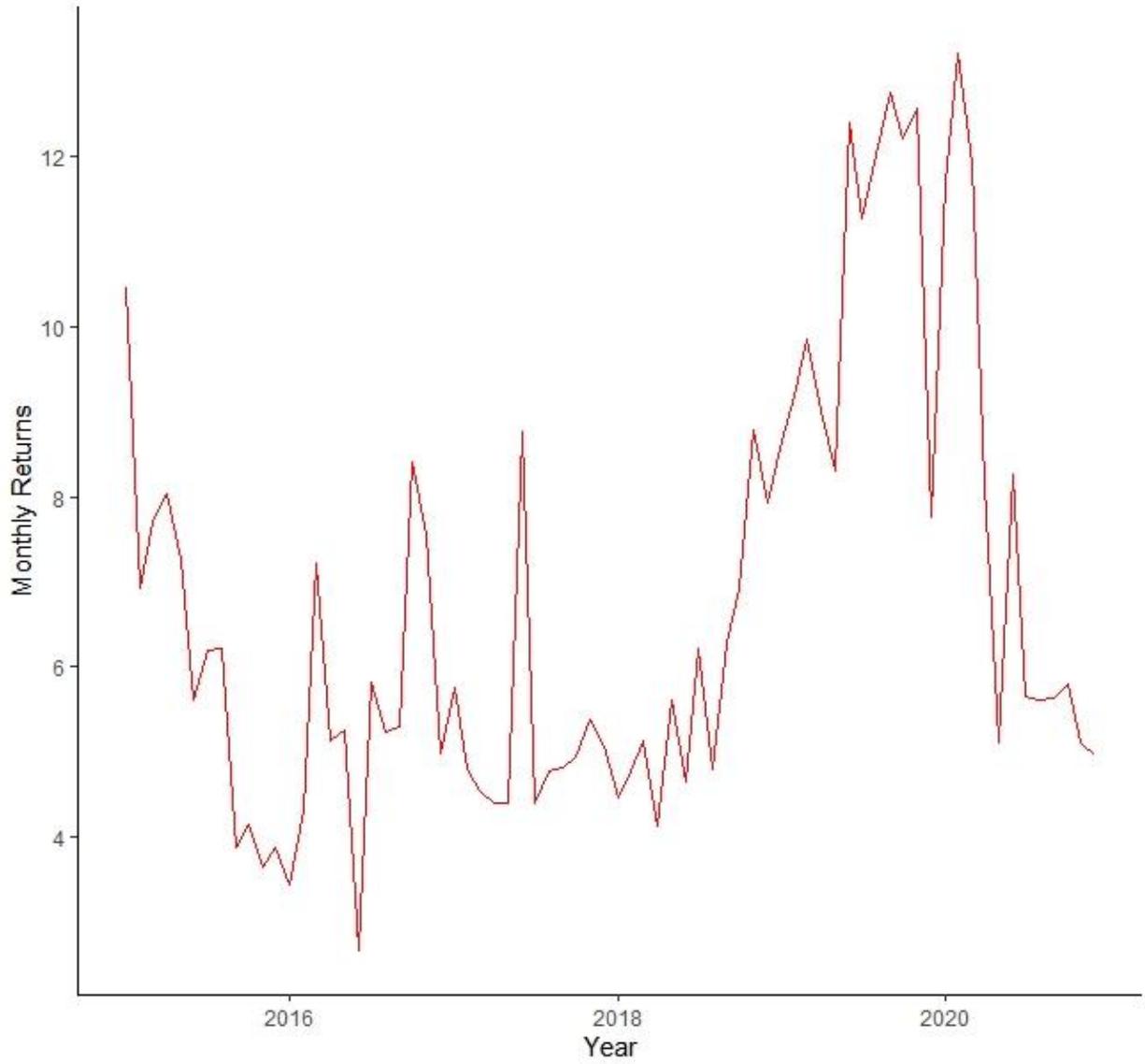
Appendix



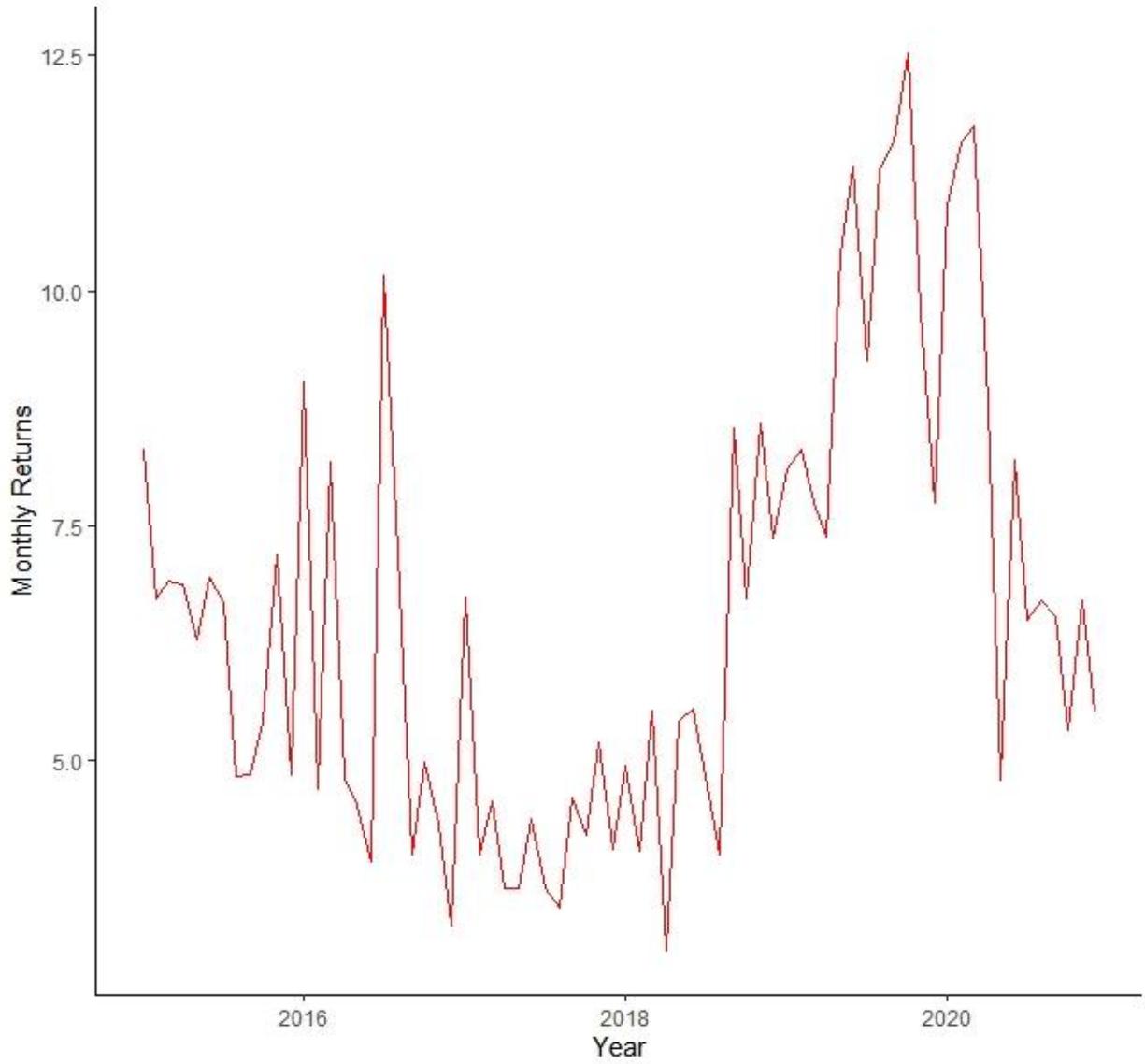
Alfalah GHP Islamic Income Fund Monthly Returns
Data Range: 2015 to 2020

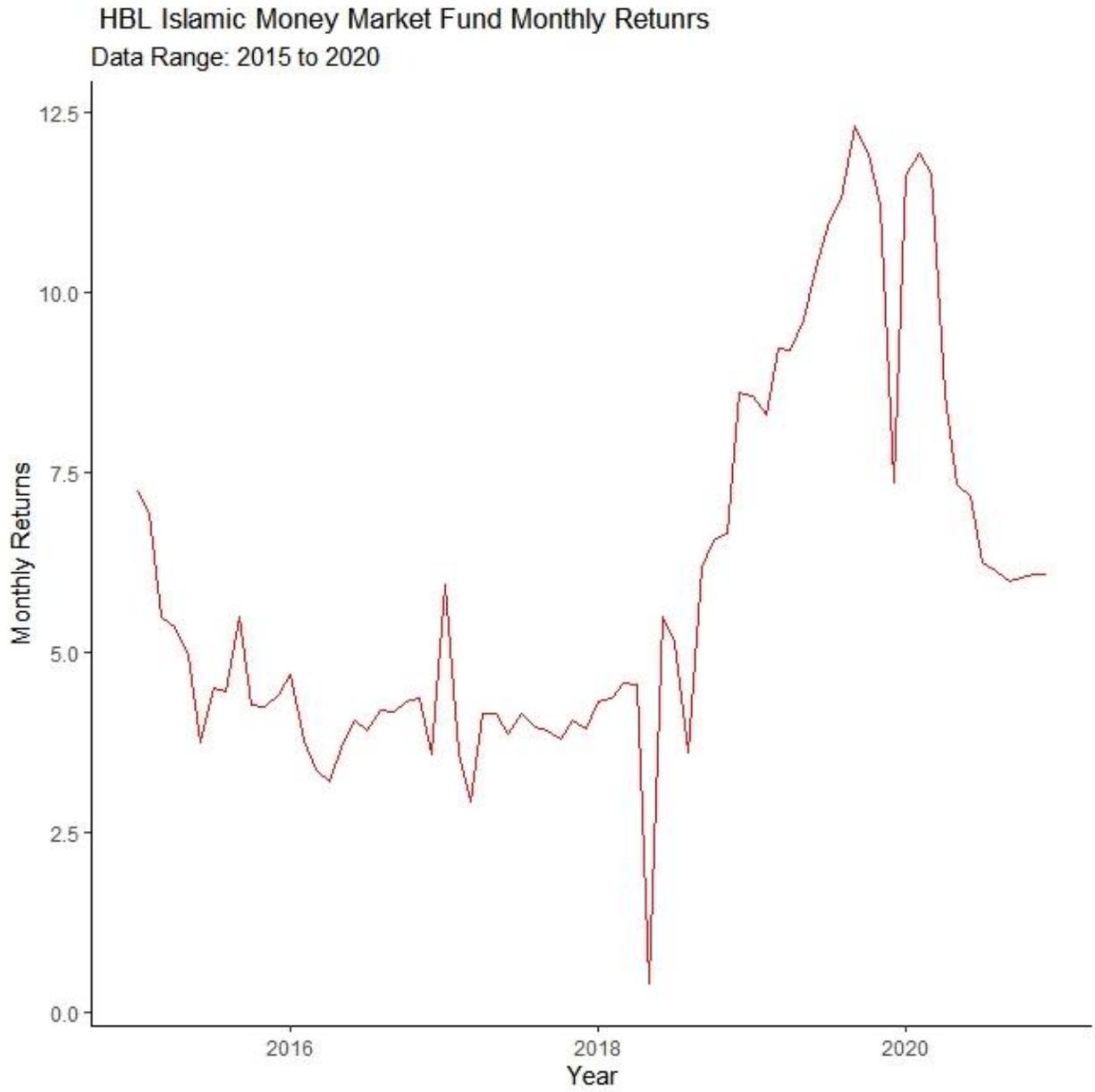


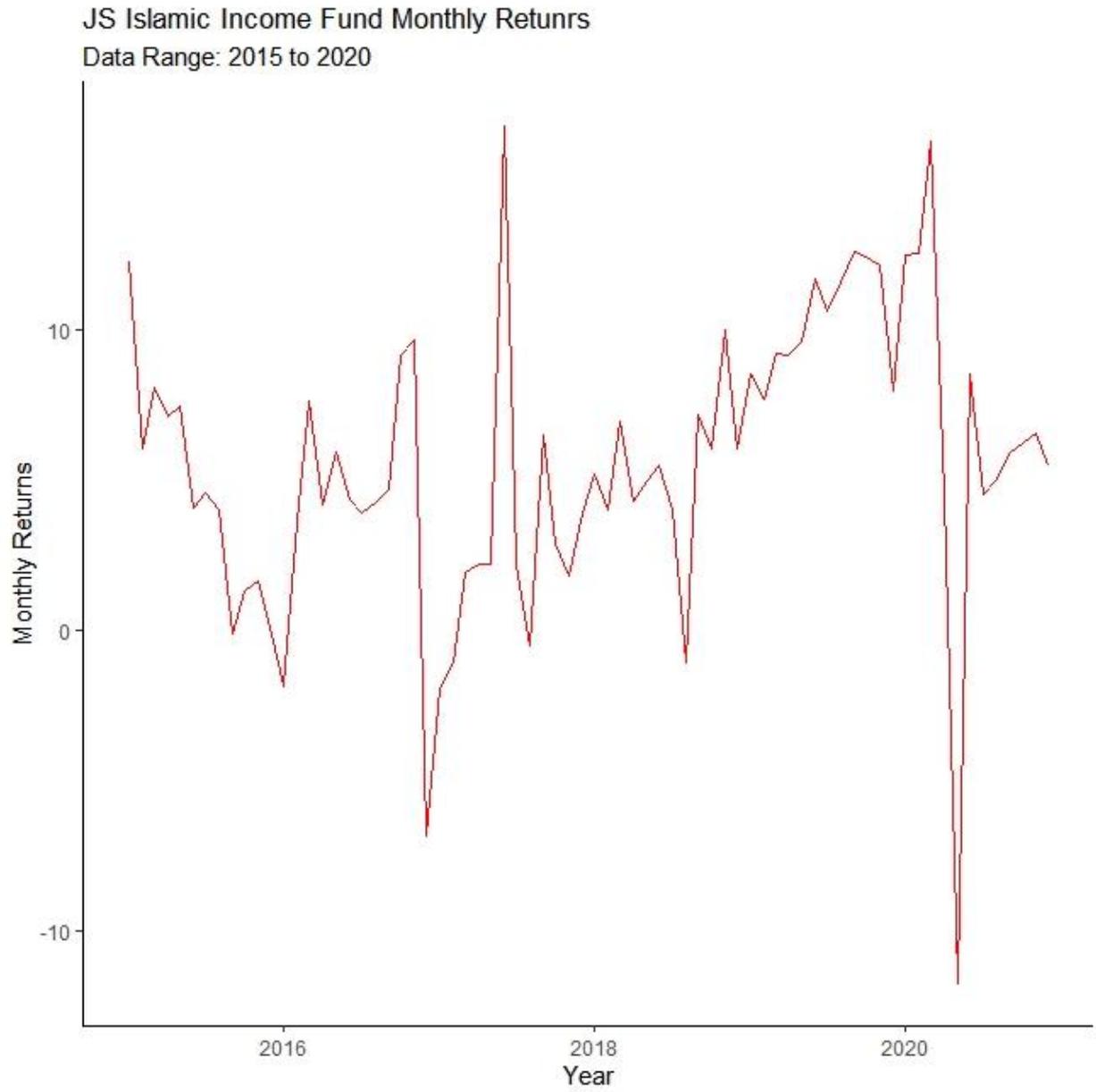
Atlas Islamic Income Fund Monthly Returns
Data Range: 2015 to 2020



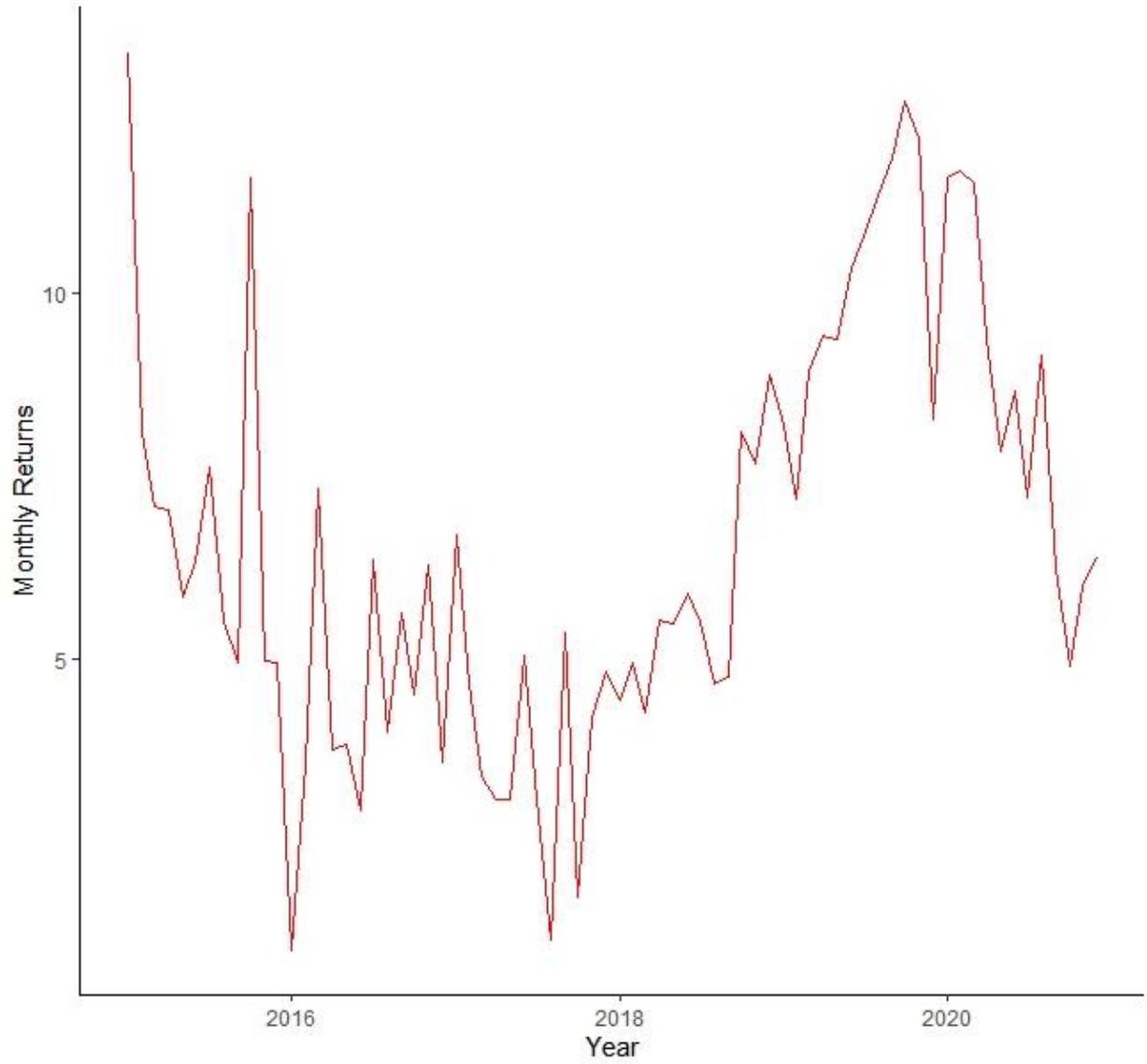
Faysal Islamic Savings Growth Fund Monthly Returns
Data Range: 2015 to 2020

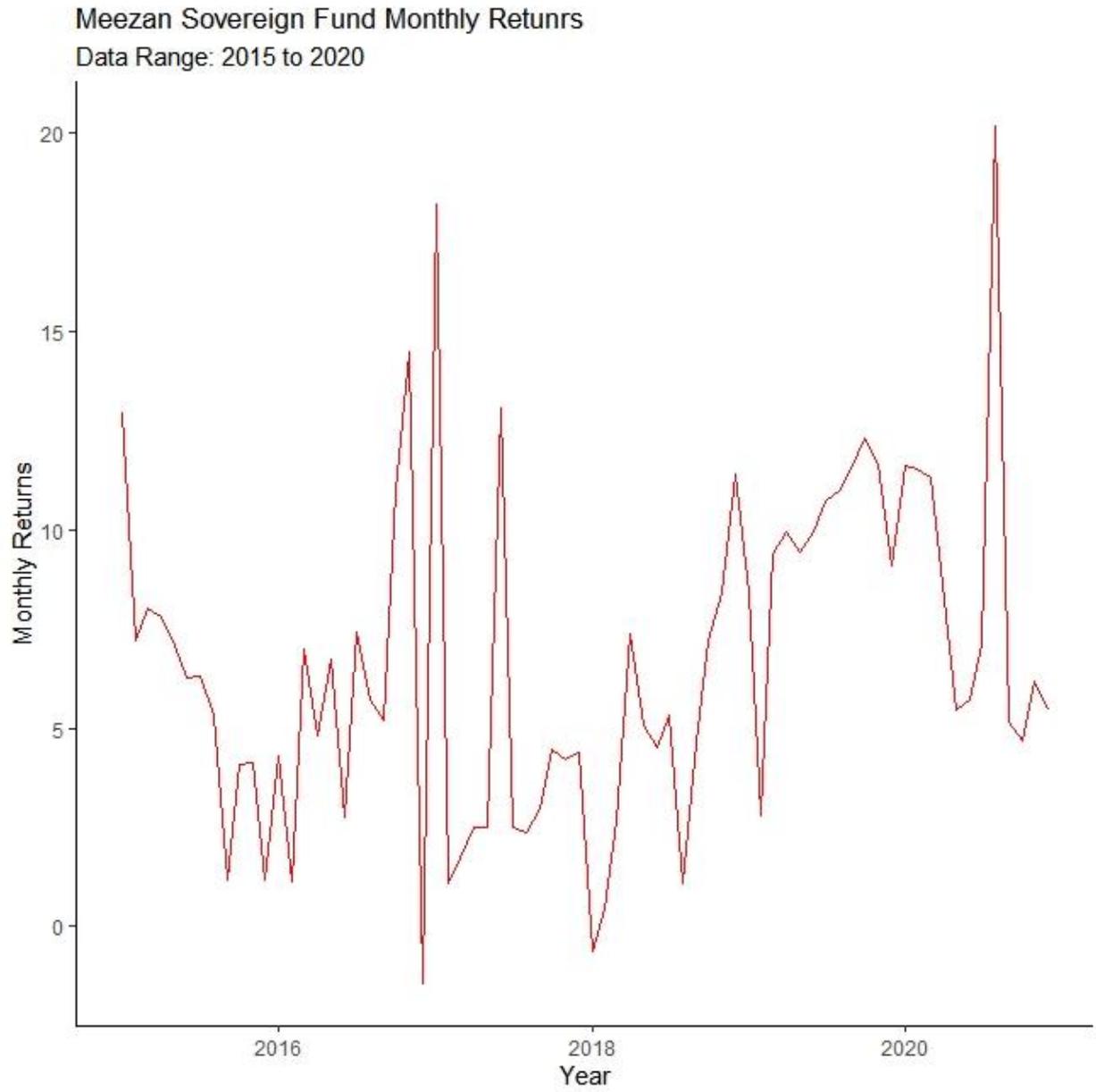


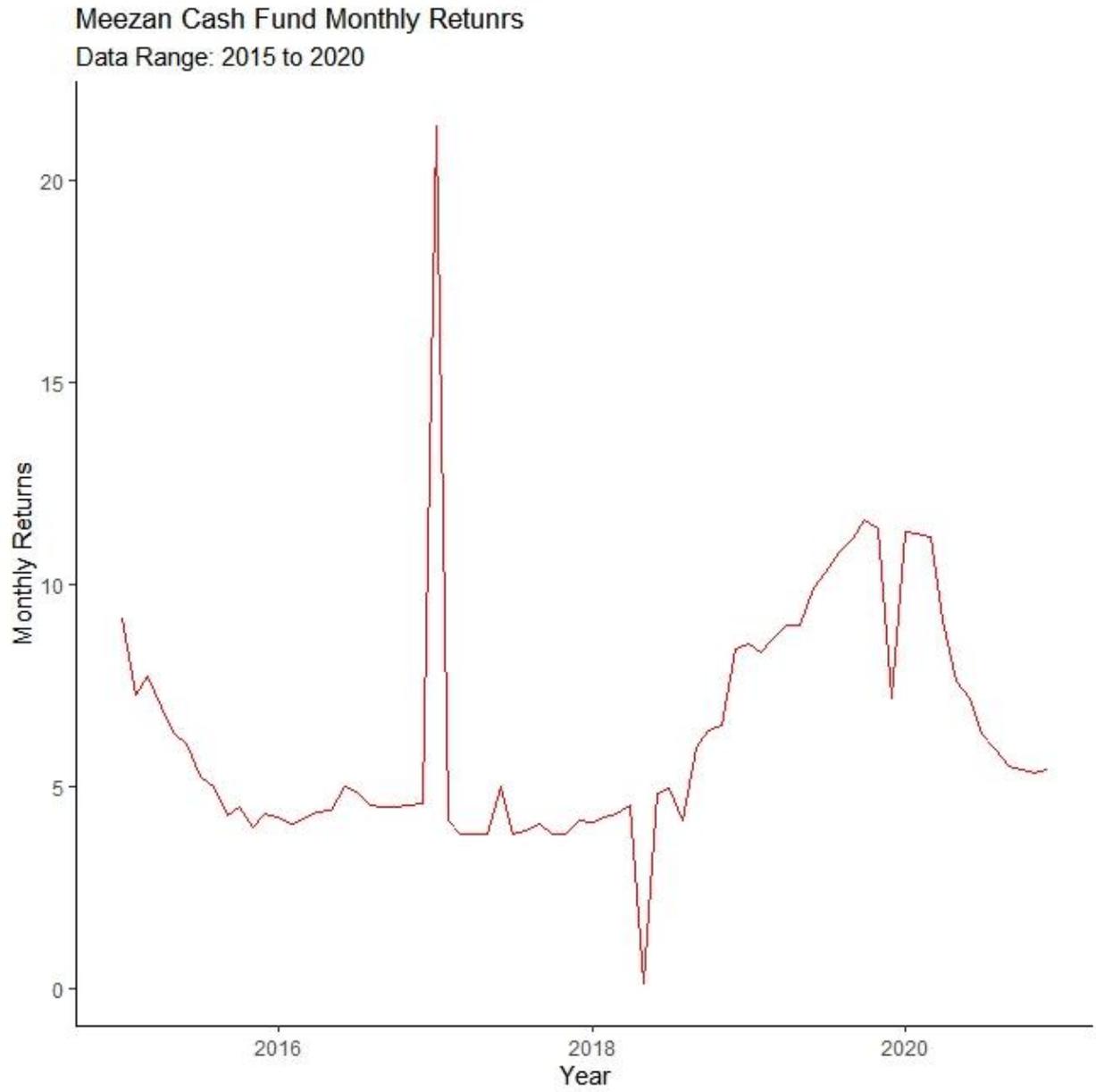




Meezan Islamic Income Fund Monthly Returns
Data Range: 2015 to 2020







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