*Original article*

# Nexus Between Discount Rate and Industrial Performance

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## Abstract

This study investigates the short-run responses and long-run performances of seven industries' stock indices with discount rate changes in the firms listed in the Pakistan Stock Exchange (PSE) between 2009 and 2018.

The results indicate that short-run returns react positively to discount rate reduction, excluding the oil industry and vice versa. Therefore, long-term performance responds favourably with a reduction in the discount rate. Discount rate changes affect the apparel industry the most, while the oil industry is the least on the list.

This study serves potential investors for their returns against investment among these industries. Furthermore, it works as a guideline for regulators and policymakers to manage fluctuations for a stable capital market.

## Keywords

Monetary policy, discount rate, stock returns, industry

## Introduction

Monetary policy is broadly perceived as having a substantial impact on stock returns. Previous studies (Fuerst, 2006; Gong & Dai, 2017; Hamburger & Kochin, 1972; Homa & Jaffee, 1971; Keran, 1971; Masih et al., 2011; Modigliani, 1972; Palmer, 1970; Patelis, 1997; Sprinkel, 1964) record confirmation that fluctuations in monetary policy impact equity returns. Moreover, portfolio allocation is too dependent on monetary policy (Zhou et al., 2014), and therefore, rational investors are using it as one of the principal inputs in selecting a portfolio in the stock market (Habiba et al., 2019).

Discount rate fluctuations signify the direction of future expected monetary policy. This perspective has earned substantial consideration of researchers; for instance, Waud (1970) and Ioannidis and Kontonikas (2008) present a justification for the significance of discount rate fluctuations from the investors' side. They report that frequent fluctuations in discount rates represent the irregularity in the monetary policy.

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Modifications in the discount rate may impact the security prices in two ways: by affecting the anticipated future firm capital flows and altering the rate of discounting the cash flows (Leuz & Verrecchia, 2005). Discount rate increments are generally considered signs of tighter or closed money, and therefore, more futuristic expensive interest rates and reductions in the degree of business activities. In contrast, rate contractions indicate a more comfortable future monetary circumstance. Previous studies (Cook & Hahn, 1988; Humpe & Macmillan, 2009; Smirlock & Yawitz, 1985; Sohail & Hussain, 2009) empirically established that a reduction in discount rates implies a positive signal while an increase in it implies a negative signal to investors.

This research study extends upon prior studies, especially those of Cook and Hahn (1988), Jensen and Johnson (1995) and Tourani-Rad et al. (2008), by conducting an inter-industry analysis of the connection between discount rate fluctuations and both short-run and long-run stock returns. Two usual comparisons are made: first, a cross-industry examination whereby short- and long-term stock returns are connected with discount rate fluctuations over industries. The stock returns may differ over industries concerning their responsiveness to variations in discount rates and overall financial pursuit. Second, the short-run stock value change during a discount rate variation is linked to its long-run performance for every industry. The short-run response indicates investors' initial evaluation for their influence, a variation in the industry discount rate, while the real consequence is estimated by long-run performance. Consequently, the latter observation links investors' perception with attained returns (Assefa et al., 2017).

Monetary policy determines the long-lasting economic dynamics of any country. The central banks mobilize the money supply through expansionary and contractionary monetary policies (Stotz, 2019). These policies are determined through discount rates, usually during the fiscal year. The discount rate represents the capital cost, which eventually leads to a benchmark for return against investments (Crowley, 2007); for instance, an increase in discount rate implies a negative effect on stock price with a lower expectation of investors' returns in the long run (Kozak & Santosh, 2020). Hence, monetary policy drives discount rates in managing the stock returns (Stotz, 2019). Rational investors hedge against all possible risks in the stock for a better return in the long run.

Developed markets indicate parametric stability and relatively more predictable monetary policy continuity through discount rate variations, while developing markets are confronted with more challenges due to high uncertainty, asymmetric information and instability (Bahrami et al., 2019). Therefore, it is essential to investigate the short-run and long-term effects of changes in the discount rates on industrial performance in various industries in a developing market like Pakistan.

## *Research Context*

The State Bank of Pakistan (SBP) has been typically reducing the discount rate since 2010 due to slow growth (Rafique et al., 2014). The purpose was to support the industries by attracting new investments. Though theoretically, this usually works, practically considering the existing economic dynamics of Pakistan, primarily the energy shortfall and new implications of global financial crisis (GFC), it is challenging to uncover the reality without looking into it. The primary reason for sluggishness in the economy was energy shortfalls that necessitated the voltage shortages for industries and the recent GFC of 2007–2008. The government launched an expansionary monetary policy to overcome the situation and enhance its performance. Therefore, it is crucial to understand the impact of discount rate on the performance of industries working in Pakistan.

This research study attempts to recognize the influence of discount rate fluctuations on short-run and long-run stock returns of seven Pakistani industries. Since the stock market volatility is high due to

frequent changes in the central bank's monetary policies in Pakistan (Papadamou et al., 2014), this study contributes to the extant literature in two ways: first, this article is the first one to examine the relationship between discount rate and stock returns in seven prominent industries of Pakistan. In this connection, the Pakistani stock market presents an excellent framework to investigate the effect of discount rate on stock returns because of more reliance on external debts and corporations' vulnerabilities in applying strong corporate governance measures. Such susceptibilities enhance the market risk for doing business. Second, this study signifies the differences among industries regarding discount rate sensitivity, whereas the existing literature is not explicitly present such perspectives.

The findings indicate that changes in discount rates imply variations in the stock returns. Some industries' stock returns are more sensitive to such changes than others. Accordingly, the reduction in discount rates brings a positive influence on the long-run performance. Thus, the findings of this study may help monetary policymakers in Pakistan in formulating efficient strategic decisions. This study may be equally beneficial for market participants to estimate responsiveness accurately in stock returns with discount rate fluctuations. This study should help them form more effective and efficient decisions for managing investments and risks in the short and long term.

The organization of the article is as follows. The second section reviews the literature. The third section provides the data and methodology. The fourth section discusses the empirical results and the fifth section concludes.

## Literature Review

The relationship between discount rate and stock returns indicating various sectors of the economy has been identified. According to Sellin (2001), stock returns react positively to expansionary monetary policy and negatively to contractionary monetary policy considering the prevailing economic indicators in hand. According to Cooper (1974), money supply affects stock returns in the market. Money supply and discount rate cumulatively influence equity prices and returns (Hafer, 1987; Pearce & Roley, 1985; Rasool et al., 2020). This phenomenon implies that contractionary monetary policy leads to a decrease in stock prices utilizing interest rates. It is evident from the study that stock prices react negatively to changes in interest and vice versa for expansionary monetary policy (Baker & Meyer, 1980; Burki, 2016; Chen et al., 1999; Huang et al., 2016; Thorbecke, 1997). Accordingly, Rahman and Mohsin (2011) and Balke and Wohar (2006) have arrived at the conclusion that discount rate has a strong negative effect on equity and stock returns of various industries of the Pakistani sector.

Moreover, Kozak and Santosh (2020) reported a negative association between discount rate and stock prices. With an increase in the discount rate, the stock prices react negatively, which eventually reduces the stock return. Such a business environment compels a rational investor to hedge the aggregate risk premia for their investment (Maneemaroj et al., 2019; Stotz, 2019). The volatility in stock return with interest rate announcement is highly significant, while after 5 days of such announcement, the return volatility tends to decrease in developed markets such as the USA, Canada, Japan, the UK, Germany, France and Italy (Lyócsa et al., 2019). On the other hand, there is high volatility in the stock return due to parametric instability and relatively high uncertainty in the developing markets' economic environment (Bahrami et al., 2019). Rational investors become too conscious, especially in the developing markets. Another study (Papadamou et al., 2017) highlighted a link between central banks' independence in devising monetary policy and stock market volatility.

Some studies show a weak implication of discount rates on share returns to the Chinese stock and monetary market; for instance, Lee (1997) and Chan et al. (1996) reported a significant negative to no association between discount rate and short-term changes in the US stock markets. Similarly, kontonikas et al. (2013) have determined a negative implication of discount rates on share returns, excluding the financial crisis between 1989 and 2012. Nonetheless, even a discount rate reduction does not positively affect the stock returns during a financial crisis. In line with the above findings, some researchers have found a robust negative relationship between discount rates and stock returns (Arango et al., 2002; Dinenis & Staikouras, 1998; Liu, 2005; Luo, 2009; Martínez-Moya et al., 2013; Wang, 2003).

Alam and Uddin (2009) examined the short-term discount rate changes and stock returns using monthly data between 1988 and 2003, comparing developing and developed markets through the random walk model phenomenon. They confirmed a negative association between discount rates and stock prices for all those countries under study.

On the other hand, Bernanke and Kuttner (2005) reported an increase of 1.3% in the stock prices after reducing the Fed's discount rate by 25 basis points through Campbell and Ammer's (1993) approach. Keeping in line with the same approach, Ehrmann and Fratzscher (2004), Kontonikas et al. (2013) and Lyócsa et al. (2019) have revealed stock prices with positive implications due to monetary policy announcements; for instance, an increase of 50 basis points in the discount rate provides around 3% decrease in stock prices.

## Methodology

### *Sample and Context of Research*

This study analyses the stock returns of selected seven key industries listed in the Pakistan Stock Exchange (PSE) between 2009 and 2018. This period is chosen because it reflects the industry performance after GFC. This period comprises 32 fluctuations in the discount rate, 23 decreases while 09 increases by SBP. Hence, due to frequent fluctuations in the discount rates, parametric instability, information asymmetry and relatively high uncertainty in Pakistani industries, this study warrants that it is the first study to examine the association between discount rates and stock returns for the selected seven critical industries.

The stock returns are determined by taking the PSE equally weighted index and seven equally weighted industry indices. The indices of the industry are formulated according to Pakistan Standard Industrial Classification (PSIC) group-wise, as used by Fama and French (1986) and Johnson (1991). This methodology is in line with Jensen et al. (1997) study.

#### *Index features of the selected industries in pakistan*

*Table 1 shows data on the stock indices of PSE.* The mean is determined by taking the geometric mean return between 2009 and 2018. The beta is calculated by taking the daily returns' regression indices of industry against market indices' daily returns for 10 years. A rate of change continues with effect from the announcement of the change in discount rates until the subsequent change in rate is announced. The incumbent industry indices are taken based on equal weighting, given the changing discount rates.

An equal number of firms (i.e., 10) from each of these industries are taken. The mean return is calculated by taking geometric returns on an annual basis. Short- and long-run stock returns are estimated to ascertain the realistic association between stock performance and changing discount rates.

**Table 1.** Index Features of the Selected Industries in Pakistan (2009–2018).

| Industry Name | PSIC Code | Average Annual Returns (%) | Beta |
|---|---|---|---|
| Apparel | 14–141-1410 | 18.03 | 0.93 |
| Chemicals | 20–201-2012 | 17.95 | 1.07 |
| Drugs | 012–0128-0128200 | 19.70 | 0.99 |
| Foods | 10–101-1010 | 19.85 | 0.84 |
| Oil | 011–0111-0111300 | 17.90 | 1.10 |
| Retails | 45–451-4540 | 17.89 | 0.98 |
| Transportations | 33–331-3315 | 15.03 | 1.15 |

**Source:** The author.

**Note:** The average return is represented as a percentage and is determined by taking the geometric yearly return. The beta is determined by regressing industry index returns against market index returns over the period 2009–2018.

**Table 2.** Parametric Test of Periodic Returns for Changing Discount Rates.

| Industry Name | Mean Daily Returns | | | |
|---|---|---|---|---|
| | Decrease | Increase | Differentials | *t*-Statistics for Differentials |
| Apparel | 0.3706 | 0.5554 | 0.7207 | 5.05** |
| Chemicals | 0.2701 | 0.4590 | 0.7292 | 4.15** |
| Drugs | 0.2673 | 0.3969 | 0.6650 | 3.75** |
| Foods | 0.2879 | 0.4319 | 0.7209 | 5.10** |
| Oil | 0.2879 | 0.4319 | 0.7209 | 5.11* |
| Retails | 0.0076 | 0.4120 | 0.4049 | 1.69** |
| Transportations | 0.4449 | 0.4547 | 0.9317 | 5.13** |

**Source:** The author.

**Note:** (a) The mean daily returns are in percentages. (b) All the *t*-statistics results are significant at 1% level (**), excluding the oil industry at a 5% level of significance (*).

This study uses parametric and non-parametric tests for capturing differences in the short-run and long-term performance of the stock indices by considering seven industries listed on PSE between 2009 and 2018. Specifically, the short-run stock returns are analysed by assuming a 2-day announcement period. In the long-term stock performance, the 2-day announcement period is excluded.

This study also considers the macroeconomic factors, that is, Consumer Price Index (CPI) and gross domestic product (GDP), as control variables by referring to the previous studies (Aubuchon & Wheelock, 2010; Beltratti & Stulz, 2012). This study obtains the CPI and GDP data from the World Bank Development Indicators database and the Central Banks of Pakistan's annual reports. For brevity, the coefficient estimations of the control variables are not provided in the tables.

*Empirical results*

*Table 2provides the mean returns of the daily announcement, that is, the short-term, related to changing discount rates (increase/decrease).* The investors consider the decrease in discount rates as good news, whereas an increase in it is bad news. Notably, the announcement time returns related to decreasing rates

are sufficiently higher than the returns connected with increasing rates for all industries, excluding the oil industry.

Nevertheless, the evidence implies that investors render discount rate fluctuations to have relationships for most corporations as the response is meaningful at 1% confidence level for all industries, excluding the oil industry.

Table 3provides a report of the average yearly returns investors could have obtained had they committed their funds in the index following the indicated direction of discount rate changes. The outcomes reveal that returns ensuing rate reductions were considerably higher for all the indices than proceeds following the rate increases. However, the return variations fluctuate substantially across all these industries. The market index reported a mean yearly proceed of 38.19%, given the decrease in rate and 0.59% after the increase, making a difference of 37.60%. This variation is in line with what Jensen and Johnson reported in 1995. The retail industry is reporting with the smallest returns' differential, which is approximately 22%. The*t*-statistics provide the evidence that returns are relatively higher, given decreasing rates compared to returns following the rate rises for all industries.

Table 4provides evidence concerning variance in the long-run returns of various industries under consideration. In contrast to the usual positive risk and return association, the deviation following rate rises is higher for every index than in times following discount rate reductions. The deviation in the market index returns, given the rate increase, is relatively twice compared to decreasing rates. The requisite*F*-statistics validate that the alterations in variation are statistically meaningful for all industries in the study.

Table 5states that the mean-adjusted market returns variations for the periods are linked to discount rate reductions compared to rate hikes. The variations are recorded for short-run (i.e., announcement period) and long-run (post-announcement period) returns. The adjusted market returns are concluded by deducting the market index return from the industry index return. The average deviation is then obtained as the mean variation between the average market-adjusted return following discount rate reductions and the discount rate. The outcomes show the given industries that display short-run and long-run return arrangements that are considerably weaker or stronger than the market. The short-run outcomes show

**Table 3.** Parametric Test of Long-run Returns, Given Various Discount Rates.

| Industry Name | Mean Daily Returns | | | |
|---|---|---|---|---|
| | Decrease | Increase | Differentials | *t*-Statistics for Differentials |
| Market | 38.19 | 0.59 | 37.60 | 5.80** |
| Apparel | 36.03 | -3.97 | 40.00 | 7.15** |
| Chemicals | 37.17 | 2.85 | 34.32 | 4.51** |
| Drugs | 38.70 | 5.19 | 33.51 | 4.53** |
| Foods | 37.01 | 6.80 | 30.21 | 4.69** |
| Oil | 37.05 | 6.09 | 30.96 | 5.05* |
| Retails | 30.62 | 9.01 | 21.61 | 2.25* |
| Transportations | 42.25 | −1.61 | 43.86 | 6.25** |

**Source:** The author.

**Note:** * Retail and oil industries significant at 5% level; ** the rest of all industries are significant at 1% level.

**Table 4.** Parametric Test of Return Variance, Given the Discount Rate Changes.

| Industry Name | Variance of Returns Given Rates Changes | | |
|---|---|---|---|
| | Decrease | Increase | *F*-statistics for Differentials |
| Market | 0.4340 | 0.8939 | 3.09* |
| Apparel | 0.5805 | 0.9596 | 4.72* |
| Chemicals | 0.6001 | 1.1620 | 3.98* |
| Drugs | 0.5681 | 1.0460 | 5.81* |
| Foods | 0.3910 | 0.8260 | 4.15* |
| Oil | 1.0075 | 1.6691 | 5.70* |
| Retails | 0.5320 | 0.9810 | 6.87* |
| Transportations | 0.7101 | 1.2739 | 7.82* |

**Source:** The author.

**Note:** All *F*-statistics are significant at 5% level (*) of confidence.

**Table 5.** Parametric Test of Return Differences (i.e., periods of announcement and post-announcement).

| Industry | Change in the Mean Market-adjusted Returns (announcement) | Change in Mean Market-adjusted Returns (post-announcement) |
|---|---|---|
| Apparel | −0.0709 (−0.97) | 0.0410 (3.68)* |
| Chemicals | −0.0675 (−0.95) | −0.0125 (−1.19) |
| Drugs | −0.1309 (−1.90) | −0.0171 (−1.69) |
| Food | −0.07601 (−1.25) | −0.0276 (−2.50) |
| Oil | −0.3919 (−3.01)* | −0.0565 (−3.07)* |
| Retails | 0.1350 (2.40)* | 0.0205 (2.45)* |
| Transportations | 0.0360 (0.51) | 0.0001 (0.03) |

**Source:** The author.

**Note:** *t*-Statistics are in parentheses; *significant level ($p$ <0.05).

that the retail industry exhibits substantially higher responses to fluctuation in discount rate announcement than the average stock. However, the oil industry is showing a significantly weaker association with the discount rate change.

Non-parametric test outcomes are shown in Table 6. The non-parametric tests measure the 32 periods that correspond to fluctuations in the discount rate. The statistical results recorded in Tables 2 and 3 demonstrate significant variations in average returns. Nonetheless, the differentiation can be made by several periods showing exceptional returns. The non-parametric tests are intended to ascertain whether the variations in return occur from a constant pattern of stocks' performance or significant price changes following little part fluctuations in the discount rate.

The total ranks of the mean return following the nine rises in the discount rate are determined through Wilcoxon signed-rank test. The outcomes reveal that returns connected with interest rate reductions surpassed those affiliated with rises in interest rates in a sheer bulk of cases. The oil industry records the only non-significant statistic for short-run returns as opposed to others. The meaningful non-parametric statistics imply that the return variations recorded in Tables 2 and 3 are produced from typical experience and not

**Table 6.** Non-parametric Tests for Changes in Returns (Wilcoxon Signed-Rank Test).

| | Announcement Period | | Post-announcement Period | |
|---|---|---|---|---|
| Industry | Value | (Statistics) | Value | (Statistics) |
| Market | 872.3 | (3.88)* | 917 | (3.40)* |
| Apparel | 854 | (4.09)* | 895 | (3.65)* |
| Chemicals | 913 | (3.45)* | 943.5 | (3.09)* |
| Drugs | 916 | (3.39)* | 859 | (4.01)* |
| Food | 843 | (4.25)* | 881 | (3.69)* |
| Oil | 1081 | (1.55) | 1041 | (1.99)* |
| Retails | 833.5 | (4.30)* | 903 | (3.49)* |
| Transportations | 914 | (3.39)* | 934 | (3.20) |

**Source:** The author.
**Note:** * Returns significant at 5% level.

from several separate events. The importance of the non-parametric statistical results agreeing to the long-run returns (i.e., post-announcement returns) shows that the performance of the stock is regularly better (worse), ensuing discount rate reductions (rises). The Wilcoxon test confirms the connection's constancy and verifies that the recognized arrangements link to an exact cause and not merely a coincidence observation.

## Discussion

Tables 3 and 4 depict attractive returns and risk optimality considering the reduction in the discount rate. Such optimization in risk/return is evident in lower discount rates; there is a significantly higher return with less volatility than the periods confronting higher discount rates. Additionally, the variation in risk and return is consistent in all the given industries. Discount rates' changes are related to the market stock's overall performance rather than to a specific industry sector. Notwithstanding, the recognized patterns are more evident for any industry. This implies that the monetary setting is more relevant for particular industries.

The short-term outcomes are in line with the prospect that a discount rate modification indicates a report about expected interest rates. The retail industry is affected significantly due to twofold reasons. First, retail acquisitions funded with the loan would grow more or less expensive, and consequently, the retail industry degree would vary with a move in interest rates. Second, the inventory carrying costs for the retailers changes with a variation in the rate of interest.

The oil industry's lower reactionary behaviour indicates other factors than the monetary factors exclusively for evaluating and gauging the performance; for instance, oil-reach countries' economic and political imbalance would predominantly affect this industry's performance. Therefore, the short-term findings are in line with previous results and expectations.

For long-term outcomes, this study indicates that apparel and retail industries show a higher association to change in discount rates than other industries. As evidence, Table 5 indicates that the changes in discount rates show a higher sensitivity to retail industry but a lower sensitivity with the oil industry. The long-run actualized returns resemble the short-run responses for the oil and retail industries. Furthermore, more effective than mean long-run arrangements happened in the apparel industry, notwithstanding the

reality that this industry did not respond separately from the average stock during the rate modification announcement.

The long-run return outcomes support Nowak (1993) and Ferrer et al. (2016) affirmation that monetary policy moves substantially impact industries with a considerable import or export element. In particular, the apparel and retail industries all present higher than mean return arrangements, and none of the given industries is profoundly affected by import or export circumstances.

The significance of monetary policy in asset pricing is indicated through long-term return patterns across industries. In this connection, the works of Chan et al. (1996) and Kozak and Santosh (2020) assert that consumption-based on the capital asset pricing model (CAPM) lacks empirical support due to a lack of monetary concerns. The result implies that firms' responsiveness to monetary requirements fluctuations is a related concern in asset returns. In individuals, the industries that encountered higher than mean patterns of returns, the retail and apparel industries, are all susceptible to fluctuations in availability and spending. Compared to that, the industries below the mean patterns like oil and food are compatible with the claim and notion of monetary involvement for corporations' responsiveness to change in monetary policy and environment while considering the pricing of assets.

Generally, the stocks display higher returns with low volatility in discount rates. It is evidenced that the higher beta stocks outperform than usual, following the decreases in the discount rate. Simultaneously, the lower beta stocks did work well than average when the discount rate increased. Nevertheless, such a perspective does not hold regularly; for instance, the oil industry has the highest beta (1.13), and it has shown the best performance when the discount rate rises. In contrast, the apparel industry has a comparatively lower beta (0.95), which revealed the best performance in the discount rate reduction.

Thus, it is evident that changing discount rates due to the monetary policy environment influence investor returns in various Pakistani industries. The pattern of influence is generic rather than specific due to specific industries under consideration. Therefore, certain industries have shown identical significant results with changing discount rates very differently from the rest of the industry's movement and the discount pattern.

## Conclusion and Practical Implications

This study investigates the short-run response and long-run performance of seven industry stock indices connected to fluctuations in the SBP discount rate between 2009 and 2018. The short-term returns of all industries except the oil industry respond positively to the discount rate reduction while a rate increase is reacted negatively. This view maintains the conventional outlook of discount rate drops as good news while rises as sad news. Nevertheless, the overall reaction to rate fluctuations implies that investors require the modifications to involve most companies.

The long-run outcomes, too, present meaningful return patterns connected with rate fluctuations. The seven industry divisions all exhibited significantly favourable following rate reductions than the following rate rises, but the outcomes revealed a high distribution level over the industries. Mainly, discount rate reductions were accompanied by average yearly proceeds for the market index of around 38.19%, while following the discount rate rises, the market proceeds equated only 0.59%, a return variation of 37.60%. The apparel industry affected the most substantial return deviations (roughly 50%). In comparison, the oil industry presented the least differences (nearly 20%). Moreover, for any of the given seven industries, the deviation of proceeds following rate rises was substantially higher than the variation following rate reductions.

The short-run outcomes confirm the given contracting hypothesis. The industries heavily relied on import/export are strongly affected by the central bank's monetary policy changes in the long run. Interestingly, the apparel and retail industries' stock returns are more robust and stronger than the market. Changes in discount rates actively influence these industries for their import and export settings.

Overall, the stock performance is strongly associated with fluctuations in the monetary setting. The change in the extent of the long-run return patterns presents proof backing the significance of monetary circumstances in asset pricing; for example, Chan et al. (1996) show that the inability to estimate monetary factors may justify the absence of experiential underpins for the consumption-focused CAPM. The responsiveness of firm returns to fluctuations in monetary circumstances is an essential factor in asset returns. Notably, the industries that encountered higher than average return patterns, such as the apparel and retail industries, are sensitive to alterations in availability and money spending. Contrary to it, industries that have below-average patterns, like food and the oil industry, are less receptive to variations in spending as they include things bought with more consistency. Overall, such findings are compatible with the claim that monetary concerns and corporations' responsiveness to fluctuations in the monetary setting are appropriate for asset pricing.

## *Theoretical Contributions*

The findings make a theoretical contribution to the extant literature to understand better the relationship between discount rate fluctuations and responsiveness of various industries' equity returns in both the short and long run, given the sensitivities of different industries.

## *Practical Implications*

The findings may help policymakers in Pakistan in formulating efficient strategic decisions, given various industries' sensitivities for short-and-long-term equity returns to changing discount rates. This study may be equally beneficial for market participants to estimate responsiveness accurately in stock returns with discount rate fluctuations in different industries. This study should help them form more effective and efficient decisions for managing investment portfolios and hedge risks in the short and long term.

## *Limitations and Future Research*

Despite its positive features, this study has several limitations. Since the developing markets are highly susceptible to various anomalies, future researchers can focus on other forces that drive the stock returns, like commodity prices and the level of risk aversion strategies. Moreover, future researchers may consider the moderating and mediating implications of energy shortfalls, oil import dependence, weak corporate governance measures and external debts in investigating the relationship between discount rate fluctuations and industrial performance.

Furthermore, researchers may use a survey research methodology to obtain primary data for understanding the investors' behaviour with changing discount rate announcements.

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