Q1:

```
                            OLS Regression Results
==============================================================================
Dep. Variable:               PB_ratio   R-squared:                       0.133
Model:                           OLS   Adj. R-squared:                  0.132
Method:                Least Squares   F-statistic:                     106.1
Date:               Fri, 29 Mar 2024   Prob (F-statistic):          1.36e-43
Time:                       19:37:57   Log-Likelihood:                -2862.2
No. Observations:               1384   AIC:                             5730.
Df Residuals:                   1381   BIC:                             5746.
Df Model:                          2
Covariance Type:            nonrobust
==============================================================================
                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const          0.1420      0.287      0.494      0.621      -0.422       0.706
ROE            1.7930      0.415      4.325      0.000       0.980       2.606
Volatility     8.6782      0.624     13.913      0.000       7.455       9.902
==============================================================================
Omnibus:                      124.826   Durbin-Watson:                   1.787
Prob(Omnibus):                  0.000   Jarque-Bera (JB):              170.211
Skew:                           0.722   Prob(JB):                     1.09e-37
Kurtosis:                       3.929   Cond. No.                         14.6
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
Processing is done!
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1. Coefficients:

- The coefficient for ROE is 1.7930, and it is statistically significant at any conventional level ($p < 0.01$), indicating a positive and strong relationship between ROE and the P/B ratio. As ROE increases by one percentage point, the P/B ratio is expected to increase by approximately 1.7930 units, holding stock volatility constant.

- The coefficient for Stock Volatility is 8.6782, which is also statistically significant ($p < 0.01$). This suggests that stock volatility has a positive and strong association with the P/B ratio. For each unit increase in stock volatility, the P/B ratio increases by approximately 8.6782 units, holding ROE constant.

2. R-squared:

- The R-squared value is 0.133, which means that approximately 13.3% of the variation in the P/B ratio is explained by the model. The remaining 86.7% of the variation is due to other factors not included in the model. This indicates that while ROE and stock volatility do have an impact, there are other significant factors that affect the P/B ratio.

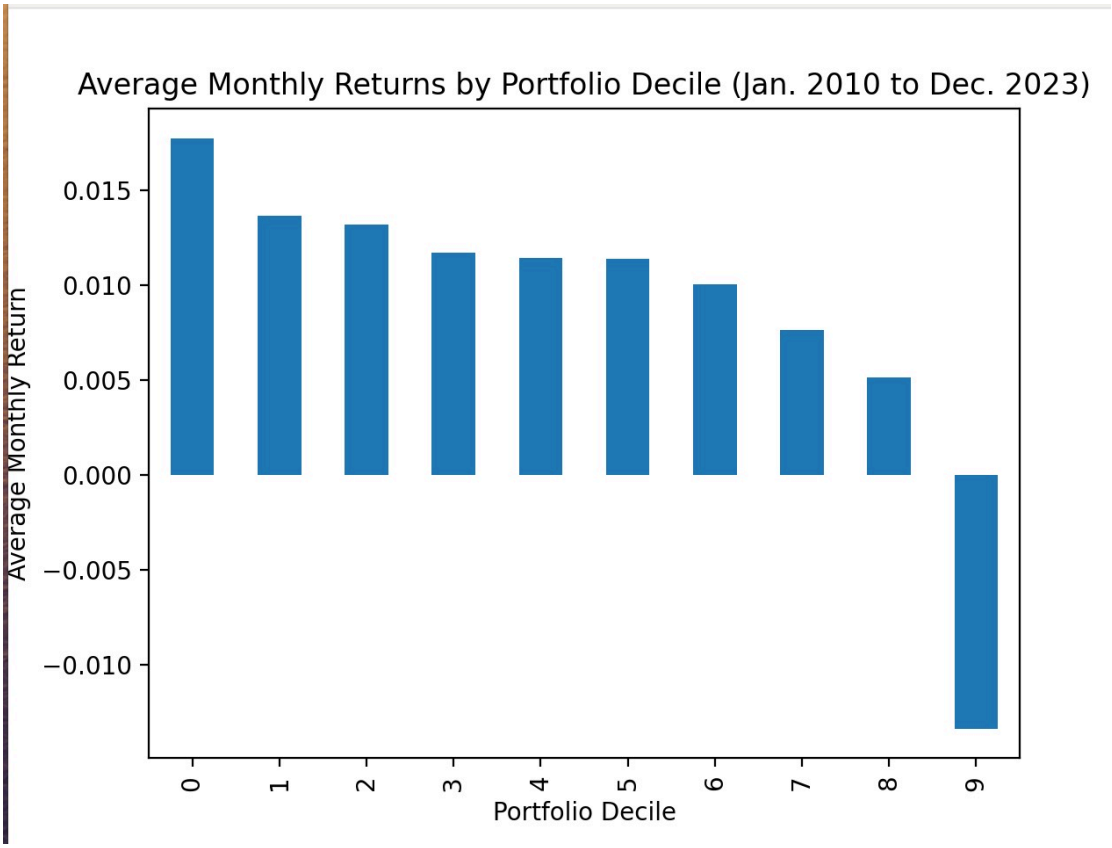
3. F-statistic:

- The F-statistic is significant (Prob(F-statistic) is close to 0), which suggests that the model

is a good fit and that the variables ROE and Stock Volatility jointly have a statistically significant impact on the P/B ratio.

In summary, the results suggest that both ROE and Stock Volatility are positively related to the P/B ratio at the end of 2010 for A-share firms. The strong significance of the coefficients indicates that they are important factors in determining the P/B ratio. However, the relatively low R-squared value suggests that other variables not included in the model also play a significant role in explaining the P/B ratio.

Q2:



1. **Descending Returns with Higher Deciles:**

   There is a clear downward trend in the average monthly returns as we move from the first decile (the lowest P/B ratios) to the tenth decile (the highest P/B ratios). This suggests that stocks with lower P/B ratios (value stocks) have, on average, performed better than those

with higher P/B ratios (growth stocks) during this period.

2. **Negative Returns in the Highest Decile:**

   The tenth decile shows negative average monthly returns. This indicates that the group of stocks with the highest P/B ratios underperformed the market on average, which could be a sign of overvaluation or that these stocks were not able to justify their high valuations with sufficient earnings growth.

3. **Variability Across Deciles:**

   The first decile shows notably higher returns compared to the others, which might attract investors who are looking for value-based investment strategies. The returns then decrease more or less steadily across the subsequent deciles.

4. **Potential for a Value Premium:**

   The pattern is consistent with the value premium concept in finance, which suggests that stocks that are undervalued relative to their fundamentals (like having lower P/B ratios) tend to outperform over time.