

Analysis Report

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Sample Characteristics

The sample comprises a total of 773 companies. These companies are categorized based on their engagement in foreign sales and the use of foreign currency derivatives.

The categorization of companies by foreign sales indicates that 220 companies (28.46%) do not engage in foreign sales, whereas 553 companies (71.54%) report having foreign sales.

Regarding the use of foreign currency derivatives, 519 companies (67.1%) do not utilize such derivatives, while 254 companies (32.9%) do employ foreign currency derivatives.

Further breakdown of the data segments the companies by their use of foreign currency derivatives, stratified by whether they engage in foreign sales or not. Among companies that use foreign currency derivatives, 42 companies (5.4%) report having foreign sales, whereas 212 companies (27.4%) do not engage in foreign sales. Conversely, among companies that do not use foreign currency derivatives, 178 companies (23.0%) engage in foreign sales, and 341 companies (44.1%) do not.

| Segment | Use of Derivatives = No | | Use of Derivatives = Yes | |
|-----------------------|-------------------------|------|--------------------------|------|
| | N | % | N | % |
| With Foreign Sales | 178 | 23.0 | 42 | 5.4 |
| Without Foreign Sales | 341 | 44.1 | 212 | 27.4 |

Outlier Assessment

Outliers in the dataset were assessed using a threshold of three times the interquartile range (IQR). The following table provides a summary of the outlier analysis for each variable, including the lower and upper extreme values beyond which data points were considered outliers and the count of outliers identified for each variable.

In total, 2,935 cases were identified as having outliers across the specified variables. This substantial number of outliers highlights the presence of extreme values in various financial metrics and operational parameters, which could significantly influence the results of subsequent analyses. The identified outliers will be carefully considered in further statistical modeling and interpretation of results to ensure robustness and validity.

| Variable | Lower Extreme | Upper Extreme | Count Outliers |
|---------------------------------|----------------|---------------|----------------|
| Market.to.book.ratio | -6.801 | 12.544 | 552 |
| Market.to.Book.value.per.share | -6.499 | 11.657 | 581 |
| Tobins.Q | -2.744 | 6.514 | 450 |
| Ln_Total_Asset | 7.984 | 34.073 | 0 |
| Ln_Revenue | 8.242 | 33.367 | 0 |
| Long.Term.Debt_Total.Equity._._ | -216.790 | 291.970 | 328 |
| ROA._._ | -52.211 | 73.388 | 827 |
| R.D.expense | -136015500.000 | 181354000.000 | 1587 |
| Foreign.sales.to.total.sales | -1.437 | 1.916 | 0 |

Descriptive Statistics

Descriptive statistics were calculated for key variables in the dataset, providing a summary of the central tendency, dispersion, and shape of the data distribution. The table below presents the mean, standard error of the mean (SEM), standard deviation (SD), skewness, and kurtosis for each variable.

| Variable | Mean | SEM | SD | Skewness | Kurtosis |
|---------------------------------|--------------|------------|--------------|----------|----------|
| Market.to.book.ratio | 3.092 | 0.021 | 2.358 | 1.571 | 5.579 |
| Market.to.Book.value.per.share | 2.761 | 0.019 | 2.168 | 1.631 | 5.648 |
| Tobins.Q | 1.986 | 0.010 | 1.111 | 1.556 | 5.380 |
| Ln_Total_Asset | 20.944 | 0.021 | 2.440 | 0.023 | 2.303 |
| Ln_Revenue | 20.701 | 0.021 | 2.457 | -0.355 | 3.207 |
| Long.Term.Debt_Total.Equity._._ | 45.808 | 0.473 | 54.780 | 1.633 | 5.758 |
| ROA._._ | 10.771 | 0.157 | 17.843 | -0.322 | 4.810 |
| R.D.expense | 15432047.723 | 346114.872 | 33635528.060 | 2.693 | 9.999 |
| Foreign.sales.to.total.sales | 0.272 | 0.002 | 0.283 | 0.741 | 2.468 |

Log-transformation was applied to the following variables to alleviate issues related to non-normality: "Market.to.book.ratio", "Market.to.Book.value.per.share", "Tobins.Q", "Long.Term.Debt_Total.Equity..", "R.D.expense", and "Foreign.sales.to.total.sales". This transformation helps in stabilizing the variance and making the data more closely follow a normal distribution, which is a key assumption for many statistical analyses.

The descriptive statistics indicate a high degree of skewness and kurtosis in several variables, suggesting the presence of extreme values and deviations from normality. This highlights the importance of applying appropriate transformations and using robust statistical methods to handle such data characteristics in further analyses.

T-tests / Wilcoxon Tests

The tables presented below show mean comparison tests (T-tests) and median comparison tests (Wilcoxon tests) on different levels of aggregation, to compare value indicator across different groups.

| Variable | Use of Derivatives = 0 | | Use of Derivatives = 1 | | t | df | p |
|--------------------------------|------------------------|-------|------------------------|-------|--------|-----------|-------|
| | M | SD | M | SD | | | |
| Market.to.book.ratio | 3.009 | 2.396 | 3.258 | 2.272 | -5.725 | 13227.000 | 0.000 |
| Market.to.Book.value.per.share | 2.725 | 2.198 | 2.831 | 2.104 | -2.640 | 13179.000 | 0.008 |
| Tobins.Q | 2.009 | 1.173 | 1.941 | 0.977 | 3.345 | 13368.000 | 0.001 |

| Variable | Foreign Sales = 0 | | Foreign Sales = 1 | | t | df | p |
|--------------------------------|-------------------|-------|-------------------|-------|---------|-----------|-------|
| | M | SD | M | SD | | | |
| Market.to.book.ratio | 2.711 | 2.193 | 3.245 | 2.405 | -11.871 | 13227.000 | 0.000 |
| Market.to.Book.value.per.share | 2.398 | 2.015 | 2.907 | 2.210 | -12.272 | 13179.000 | 0.000 |
| Tobins.Q | 1.765 | 1.011 | 2.075 | 1.136 | -14.679 | 13368.000 | 0.000 |

| Variable | Use of Derivatives = 0 | Use of Derivatives = 1 | W | p |
|--------------------------------|------------------------|------------------------|--------------|-------|
| | Median | Median | | |
| Market.to.book.ratio | 2.251 | 2.569 | 17235521.000 | 0.000 |
| Market.to.Book.value.per.share | 2.016 | 2.180 | 18098057.000 | 0.000 |
| Tobins.Q | 1.629 | 1.656 | 19648668.500 | 0.063 |

| Variable | Foreign Sales = 0 | Foreign Sales = 1 | W | p |
|--------------------------------|-------------------|-------------------|--------------|-------|
| | Median | Median | | |
| Market.to.book.ratio | 2.251 | 2.569 | 17235521.000 | 0.000 |
| Market.to.Book.value.per.share | 2.016 | 2.180 | 18098057.000 | 0.000 |
| Tobins.Q | 1.629 | 1.656 | 19648668.500 | 0.063 |

| Variable | Foreign Sales = 0 | | | | | | |
|--------------------------------|------------------------|-------|------------------------|-------|-------|----------|-------|
| | Use of Derivatives = 0 | | Use of Derivatives = 1 | | t | df | p |
| | M | SD | M | Sd | | | |
| Market.to.book.ratio | 2.750 | 2.311 | 2.593 | 1.788 | 1.910 | 3805.000 | 0.056 |
| Market.to.Book.value.per.share | 2.475 | 2.122 | 2.171 | 1.637 | 4.038 | 3795.000 | 0.000 |
| Tobins.Q | 1.850 | 1.097 | 1.517 | 0.636 | 8.959 | 3826.000 | 0.000 |

| Variable | Foreign Sales = 1 | | | | | | |
|--------------------------------|------------------------|-------|------------------------|-------|--------|----------|-------|
| | Use of Derivatives = 0 | | Use of Derivatives = 1 | | t | df | p |
| | M | SD | M | Sd | | | |
| Market.to.book.ratio | 3.132 | 2.426 | 3.442 | 2.356 | -6.023 | 9420.000 | 0.000 |
| Market.to.Book.value.per.share | 2.845 | 2.223 | 3.015 | 2.182 | -3.582 | 9382.000 | 0.000 |
| Tobins.Q | 2.086 | 1.200 | 2.057 | 1.021 | 1.202 | 9540.000 | 0.229 |

| Variable | Foreign Sales = 0 | | W | p |
|--------------------------------|------------------------|------------------------|-------------|-------|
| | Use of Derivatives = 0 | Use of Derivatives = 1 | | |
| | Median | Median | | |
| Market.to.book.ratio | 2.031 | 2.043 | 1301213.500 | 0.042 |
| Market.to.Book.value.per.share | 1.786 | 1.661 | 1405664.500 | 0.097 |
| Tobins.Q | 1.470 | 1.306 | 1564073.000 | 0.000 |

| Variable | Foreign Sales = 1 | | W | p |
|--------------------------------|------------------------|------------------------|--------------|-------|
| | Use of Derivatives = 0 | Use of Derivatives = 1 | | |
| | Median | Median | | |
| Market.to.book.ratio | 3.132 | 2.767 | 9073455.000 | 0.000 |
| Market.to.Book.value.per.share | 2.845 | 2.358 | 9457633.500 | 0.000 |
| Tobins.Q | 2.086 | 1.793 | 10231607.500 | 0.001 |

| Variable | Subset | Foreign Sales = 0 | | | | t | df | p |
|--------------------------------|---------------------|------------------------|-------|------------------------|-------|--------|------|-------|
| | | Use of Derivatives = 0 | | Use of Derivatives = 1 | | | | |
| | | M | SD | M | Sd | | | |
| | | | | | | | | |
| Market.to.book.ratio | Dollar Depreciation | 2.949 | 2.326 | 2.527 | 1.742 | 3.177 | 1474 | 0.002 |
| | Dollar Appreciation | 2.623 | 2.294 | 2.634 | 1.817 | -0.107 | 2329 | 0.915 |
| Market.to.Book.value.per.share | Dollar Depreciation | 2.575 | 2.150 | 2.032 | 1.538 | 4.453 | 1470 | 0.000 |
| | Dollar Appreciation | 2.411 | 2.102 | 2.256 | 1.691 | 1.618 | 2323 | 0.106 |
| Tobins.Q | Dollar Depreciation | 1.941 | 1.110 | 1.505 | 0.628 | 7.159 | 1474 | 0.000 |
| | Dollar Appreciation | 1.792 | 1.084 | 1.523 | 0.641 | 5.733 | 2350 | 0.000 |

| Variable | Subset | Foreign Sales = 1 | | | | t | df | p |
|---------------------------------|---------------------|------------------------|-------|------------------------|-------|--------|------|-------|
| | | Use of Derivatives = 0 | | Use of Derivatives = 1 | | | | |
| | | M | SD | M | Sd | | | |
| Market.to.book.ratio | Dollar Depreciation | 3.347 | 2.451 | 3.428 | 2.217 | -0.969 | 3663 | 0.332 |
| | Dollar Appreciation | 2.981 | 2.396 | 3.449 | 2.427 | -7.181 | 5755 | 0.000 |
| Market.to.Book.value.per.sh are | Dollar Depreciation | 2.972 | 2.224 | 2.939 | 2.064 | 0.425 | 3648 | 0.671 |
| | Dollar Appreciation | 2.757 | 2.219 | 3.055 | 2.242 | -4.950 | 5732 | 0.000 |
| Tobins.Q | Dollar Depreciation | 2.195 | 1.205 | 2.074 | 1.006 | 3.036 | 3678 | 0.002 |
| | Dollar Appreciation | 2.010 | 1.191 | 2.047 | 1.028 | -1.245 | 5860 | 0.213 |

| Variable | Subset | Foreign Sales = 0 | | W | p |
|--------------------------------|---------------------|------------------------|------------------------|------------|-------|
| | | Use of Derivatives = 0 | Use of Derivatives = 1 | | |
| | | Median | Median | | |
| Market.to.book.ratio | Dollar Depreciation | 2.160 | 2.038 | 212442.000 | 0.154 |
| | Dollar Appreciation | 1.916 | 2.051 | 461260.500 | 0.000 |
| Market.to.Book.value.per.share | Dollar Depreciation | 1.873 | 1.580 | 227749.000 | 0.000 |
| | Dollar Appreciation | 1.724 | 1.703 | 501571.000 | 0.396 |
| Tobins.Q | Dollar Depreciation | 1.567 | 1.298 | 250900.500 | 0.000 |
| | Dollar Appreciation | 1.410 | 1.314 | 560888.500 | 0.016 |

| Variable | Subset | Foreign Sales = 1 | | W | p |
|--------------------------------|---------------------|------------------------|------------------------|-------------|-------|
| | | Use of Derivatives = 0 | Use of Derivatives = 1 | | |
| | | Median | Median | | |
| Market.to.book.ratio | Dollar Depreciation | 2.614 | 2.825 | 1382648.500 | 0.001 |
| | Dollar Appreciation | 2.209 | 2.742 | 3316736.500 | 0.000 |
| Market.to.Book.value.per.share | Dollar Depreciation | 2.306 | 2.334 | 1443850.500 | 0.382 |
| | Dollar Appreciation | 2.046 | 2.387 | 3474177.500 | 0.000 |
| Tobins.Q | Dollar Depreciation | 1.838 | 1.808 | 1540467.000 | 0.353 |
| | Dollar Appreciation | 1.624 | 1.786 | 3776080.500 | 0.000 |

The t-test results show significant differences in the Market.to.book.ratio, Market.to.Book.value.per.share, and Tobins.Q between companies using and not using foreign currency derivatives. Companies using derivatives had significantly higher mean Market.to.book.ratio ($M = 3.258$, $SD = 2.272$) compared to those not using derivatives ($M = 3.009$, $SD = 2.396$), $t(13227) = -5.725$, $p < .001$. Similarly, the Market.to.Book.value.per.share was also significantly higher for derivative users, $t(13179) = -2.640$, $p = .008$. However, Tobins.Q was lower for derivative users, $t(13368) = 3.345$, $p = .001$, suggesting a nuanced relationship between derivative usage and firm valuation metrics.

Wilcoxon tests confirmed these findings, showing significant differences in medians for Market.to.book.ratio and Market.to.Book.value.per.share, but not for Tobins.Q. These results underscore the robustness of the observed differences despite non-normal data distributions.

Further analysis segmented by foreign sales status and dollar appreciation periods revealed consistent patterns. Companies with foreign sales had significantly higher mean Market.to.book.ratio ($M = 3.245$, $SD = 2.405$) than those without ($M = 2.711$, $SD = 2.193$), $t(13227) = -11.871$, $p < .001$. This trend was observed for other valuation metrics as well.

Subsequent analyses by dollar appreciation periods indicated that the differences in firm value metrics were more pronounced during periods of dollar appreciation. For example, in periods of dollar appreciation, companies with foreign sales using derivatives had significantly higher Market.to.book.ratio ($M = 3.449$, $SD = 2.427$) compared to those not using derivatives ($M = 2.981$, $SD = 2.396$), $t(5755) = -7.181$, $p < .001$.

Linear Mixed Models

A linear mixed-effects model was employed to analyze the relationship between firm value measures and several predictor variables. The model included both fixed effects and random effects, specified with the formula:

$$\text{Market.to.book.ratio} \sim \text{Use.of.foreign.currency.derivatives} + \text{Ln_Total_Asset} + \text{Ln_Revenue} + \log_Long.Term.Debt.Total.Equity_ + \text{ROA}_ + \text{R.D.expense} + \log_Foreign.sales.to.total.sales + \text{Dividend} + (1/\text{Year}) + (1/\text{Ticker}).$$

The use of Year and Ticker as random effects accounts for the hierarchical structure of the data, where multiple observations are nested within each year and ticker (company). The inclusion of company sector as an additional random effect is not needed since we are already accounting for company variability.

Residual normality and dispersion were evaluated through the use of scatterplots and QQplots.

Market to Book Ratio

The model fit indices indicated a satisfactory fit, with an AIC of 27464.60, BIC of 27548.03, Log-Likelihood of -13720.30, and based on 7726 observations. Significant predictors included Ln_Total_Asset ($B = -0.819$, $SE = 0.122$, $p < .001$), Ln_Revenue ($B = 0.570$, $SE = 0.120$, $p < .001$), log_Long.Term.Debt_Total.Equity.. ($B = 0.289$, $SE = 0.030$, $p < .001$), ROA ($B = 0.620$, $SE = 0.022$, $p < .001$), log_R.D.expense ($B = 0.101$, $SE = 0.048$, $p = .035$), log_Foreign.sales.to.total.sales ($B = 0.145$, $SE = 0.050$, $p = .004$), and Dividend ($B = 0.227$, $SE = 0.061$, $p < .001$). The use of foreign currency derivatives was also significant ($B = -0.193$, $SE = 0.057$, $p = .001$). These results suggest that larger firms, those with higher revenues, higher debt relative to equity, greater return on assets, higher R&D expenses, greater foreign sales, and those paying dividends have higher Market to Book Ratios. The negative coefficient for the use of foreign currency derivatives suggests that firms using these derivatives tend to have a lower Market to Book Ratio.

| Term | B | std.error | F | df | p |
|-------------------------------------|--------|-----------|--------|----------|-------|
| (Intercept) | 3.031 | 0.125 | 24.284 | 46.383 | 0.000 |
| Use.of.foreign.currency.derivatives | -0.193 | 0.057 | -3.351 | 7713.044 | 0.001 |
| Ln_Total_Asset | -0.819 | 0.122 | -6.704 | 4747.271 | 0.000 |
| Ln_Revenue | 0.570 | 0.120 | 4.772 | 5124.985 | 0.000 |
| log_Long.Term.Debt_Total.Equity._._ | 0.289 | 0.030 | 9.711 | 7711.611 | 0.000 |
| ROA._._ | 0.620 | 0.022 | 28.360 | 7427.778 | 0.000 |
| log_R.D.expense | 0.101 | 0.048 | 2.107 | 4088.283 | 0.035 |
| log_Foreign.sales.to.total.sales | 0.145 | 0.050 | 2.915 | 3433.080 | 0.004 |
| Dividend | 0.227 | 0.061 | 3.720 | 7657.774 | 0.000 |

Market to Book Value per Share

The model examining the Market to Book Value per Share yielded significant results, with an AIC of 26276.22, BIC of 26359.59, and Log-Likelihood of -13126.11, based on 7693 observations. Significant predictors included Ln_Total_Asset (B = -0.879, SE = 0.115, $p < .001$), Ln_Revenue (B = 0.543, SE = 0.112, $p < .001$), log_Long.Term.Debt_Total.Equity.. (B = 0.267, SE = 0.028, $p < .001$), ROA (B = 0.578, SE = 0.020, $p < .001$), log_R.D.expense (B = 0.110, SE = 0.045, $p = .015$), log_Foreign.sales.to.total.sales (B = 0.156, SE = 0.046, $p = .001$), and Dividend (B = 0.157, SE = 0.057, $p = .006$). The use of foreign currency derivatives was significant (B = -0.195, SE = 0.054, $p < .001$), indicating firms using these derivatives tend to have a lower Market to Book Value per Share.

| Term | B | std.error | F | df | p |
|-------------------------------------|--------|-----------|--------|----------|-------|
| (Intercept) | 2.758 | 0.140 | 19.676 | 32.284 | 0.000 |
| Use.of.foreign.currency.derivatives | -0.195 | 0.054 | -3.641 | 7672.389 | 0.000 |
| Ln_Total_Asset | -0.879 | 0.115 | -7.672 | 4764.792 | 0.000 |
| Ln_Revenue | 0.543 | 0.112 | 4.851 | 5159.664 | 0.000 |
| log_Long.Term.Debt_Total.Equity._._ | 0.267 | 0.028 | 9.595 | 7672.021 | 0.000 |
| ROA._._ | 0.578 | 0.020 | 28.313 | 7385.767 | 0.000 |
| log_R.D.expense | 0.110 | 0.045 | 2.439 | 4104.346 | 0.015 |
| log_Foreign.sales.to.total.sales | 0.156 | 0.046 | 3.357 | 3456.967 | 0.001 |
| Dividend | 0.157 | 0.057 | 2.759 | 7632.620 | 0.006 |

Vqdkpau'S

Vj g'o qf gnhqt "Vqdkpau'S "cnuq"lpf kcvgf "c"i qqf "kv'y kj "cp"CIE"qh"375: ; Ø8."DIE"qh"3769407; ."cpf " Log-Likelihood of -7682.58, based on 7727 observations. Significant predictors included Ln_Total_Asset (B = -0.389, SE = 0.057, $p < .001$), Ln_Revenue (B = 0.348, SE = 0.056, $p < .001$), log_Long.Term.Debt_Total.Equity.. (B = -0.084, SE = 0.013, $p < .001$), ROA (B = 0.226, SE = 0.010, $p < .001$), log_R.D.expense (B = 0.077, SE = 0.022, $p = .001$), log_Foreign.sales.to.total.sales (B = 0.047, SE = 0.023, $p = .043$), and Dividend (B = 0.068, SE = 0.028, $p = .016$). The use of foreign currency derivatives was significant (B = -0.075, SE = 0.026, $p = .004$), suggesting that firms using yj gug"f gtxcvxgu"vopf "vq"j cxg"c"rny gt "Vqdkpau'S 0

| Term | B | std.error | F | df | p |
|-------------------------------------|--------|-----------|--------|----------|-------|
| (Intercept) | 1.981 | 0.055 | 36.236 | 62.552 | 0.000 |
| Use.of.foreign.currency.derivatives | -0.075 | 0.026 | -2.871 | 7681.339 | 0.004 |
| Ln_Total_Asset | -0.389 | 0.057 | -6.778 | 5140.050 | 0.000 |
| Ln_Revenue | 0.348 | 0.056 | 6.189 | 5533.782 | 0.000 |
| log_Long.Term.Debt_Total.Equity._._ | -0.084 | 0.013 | -6.271 | 7679.738 | 0.000 |
| ROA._._ | 0.226 | 0.010 | 22.972 | 7368.655 | 0.000 |
| log_R.D.expense | 0.077 | 0.022 | 3.423 | 4450.778 | 0.001 |
| log_Foreign.sales.to.total.sales | 0.047 | 0.023 | 2.021 | 3839.376 | 0.043 |
| Dividend | 0.068 | 0.028 | 2.411 | 7706.368 | 0.016 |

Yearly Models

The linear mixed-effects models were employed to examine the predictors of each value indicator for each year, incorporating both fixed and random effects to account for the hierarchical structure of the data. Now, Year and Company were not random terms anymore, since each year only contains a single observation for each company. Rather, we used Industry Sector as random term to account for industry effects. The table below shows the results for Market to Book Ratio.

Market to Book Ratio

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| 2006 | (Intercept) | 3.130 | 0.150 | 20.934 | 100.681 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.076 | 0.250 | -0.305 | 594.995 | 0.761 |
| | Ln_Total_Asset | 0.014 | 0.232 | 0.060 | 557.706 | 0.952 |
| | Ln_Revenue | 0.108 | 0.222 | 0.487 | 547.421 | 0.626 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.359 | 0.099 | -3.621 | 591.425 | 0.000 |
| | ROA._._ | 1.167 | 0.098 | 11.908 | 594.953 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.123 | 0.088 | 1.396 | 471.135 | 0.163 |
| | Dividend | -0.321 | 0.173 | -1.856 | 592.038 | 0.064 |
| 2007 | (Intercept) | 3.264 | 0.137 | 23.849 | 121.717 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.157 | 0.251 | -0.624 | 622.781 | 0.533 |
| | Ln_Total_Asset | 0.471 | 0.269 | 1.748 | 464.594 | 0.081 |
| | Ln_Revenue | -0.418 | 0.262 | -1.593 | 435.681 | 0.112 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.048 | 0.100 | -0.479 | 612.518 | 0.632 |
| | ROA._._ | 1.139 | 0.101 | 11.235 | 627.835 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.149 | 0.092 | 1.626 | 296.094 | 0.105 |
| | Dividend | -0.390 | 0.178 | -2.193 | 603.079 | 0.029 |
| 2008 | (Intercept) | 2.077 | 0.130 | 15.938 | 101.402 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.016 | 0.174 | -0.091 | 616.977 | 0.928 |
| | Ln_Total_Asset | 0.073 | 0.225 | 0.325 | 546.526 | 0.745 |
| | Ln_Revenue | 0.117 | 0.219 | 0.534 | 522.660 | 0.594 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.164 | 0.080 | -2.066 | 616.994 | 0.039 |
| | ROA._._ | 0.779 | 0.061 | 12.698 | 615.233 | 0.000 |
| | log_Foreign.sales.to.total.sales | -0.015 | 0.071 | -0.211 | 516.989 | 0.833 |
| | Dividend | 0.022 | 0.136 | 0.158 | 616.584 | 0.874 |
| 2009 | (Intercept) | 2.700 | 0.135 | 19.963 | 173.221 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.249 | 0.161 | -1.543 | 629.162 | 0.123 |
| | Ln_Total_Asset | -0.277 | 0.226 | -1.225 | 484.341 | 0.221 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| | Ln_Revenue | 0.502 | 0.221 | 2.268 | 419.402 | 0.024 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.146 | 0.084 | -1.729 | 613.237 | 0.084 |
| | ROA._._ | 0.796 | 0.070 | 11.289 | 627.773 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.234 | 0.070 | 3.345 | 393.427 | 0.001 |
| | Dividend | -0.071 | 0.137 | -0.515 | 622.457 | 0.607 |
| 2010 | (Intercept) | 2.772 | 0.148 | 18.793 | 169.889 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.310 | 0.178 | -1.745 | 654.750 | 0.082 |
| | Ln_Total_Asset | -0.166 | 0.272 | -0.608 | 474.262 | 0.544 |
| | Ln_Revenue | 0.224 | 0.276 | 0.812 | 405.743 | 0.417 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.031 | 0.089 | -0.349 | 647.035 | 0.728 |
| | ROA._._ | 1.038 | 0.086 | 12.008 | 656.223 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.153 | 0.079 | 1.942 | 420.653 | 0.053 |
| | Dividend | 0.016 | 0.155 | 0.105 | 649.499 | 0.916 |
| 2011 | (Intercept) | 2.531 | 0.156 | 16.251 | 166.939 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.018 | 0.182 | -0.100 | 666.938 | 0.920 |
| | Ln_Total_Asset | -0.169 | 0.266 | -0.636 | 537.883 | 0.525 |
| | Ln_Revenue | 0.181 | 0.260 | 0.695 | 504.384 | 0.487 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.072 | 0.092 | -0.784 | 664.399 | 0.433 |
| | ROA._._ | 1.081 | 0.093 | 11.685 | 664.825 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.018 | 0.083 | 0.221 | 486.971 | 0.825 |
| | Dividend | -0.162 | 0.162 | -1.001 | 665.096 | 0.317 |
| 2012 | (Intercept) | 2.749 | 0.144 | 19.155 | 185.384 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.209 | 0.160 | -1.308 | 654.856 | 0.191 |
| | Ln_Total_Asset | 0.276 | 0.250 | 1.105 | 498.005 | 0.270 |
| | Ln_Revenue | -0.216 | 0.254 | -0.849 | 457.482 | 0.396 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.023 | 0.084 | 0.277 | 653.862 | 0.782 |
| | ROA._._ | 1.106 | 0.078 | 14.098 | 648.174 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.024 | 0.075 | 0.314 | 479.945 | 0.753 |
| | Dividend | -0.196 | 0.144 | -1.361 | 654.676 | 0.174 |
| 2013 | (Intercept) | 3.367 | 0.173 | 19.499 | 146.238 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.387 | 0.184 | -2.101 | 665.801 | 0.036 |
| | Ln_Total_Asset | 0.615 | 0.292 | 2.103 | 521.693 | 0.036 |
| | Ln_Revenue | -0.598 | 0.297 | -2.011 | 479.110 | 0.045 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.063 | 0.102 | -0.617 | 665.849 | 0.537 |
| | ROA._._ | 1.242 | 0.101 | 12.285 | 660.956 | 0.000 |
| | log_Foreign.sales.to.total.sales | -0.054 | 0.088 | -0.611 | 522.717 | 0.541 |
| | Dividend | -0.146 | 0.167 | -0.873 | 665.994 | 0.383 |
| 2014 | (Intercept) | 3.213 | 0.182 | 17.678 | 132.636 | 0.000 |
| | Use.of.foreign.currency.derivatives | 0.004 | 0.187 | 0.019 | 661.868 | 0.985 |
| | Ln_Total_Asset | 0.313 | 0.279 | 1.122 | 547.844 | 0.262 |
| | Ln_Revenue | -0.308 | 0.284 | -1.083 | 517.648 | 0.279 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.046 | 0.095 | 0.485 | 662.471 | 0.628 |
| | ROA._._ | 1.078 | 0.101 | 10.723 | 658.848 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.088 | 0.090 | 0.981 | 572.477 | 0.327 |
| | Dividend | -0.051 | 0.168 | -0.306 | 662.295 | 0.760 |
| 2015 | (Intercept) | 3.015 | 0.175 | 17.264 | 141.566 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.092 | 0.178 | -0.516 | 646.407 | 0.606 |
| | Ln_Total_Asset | 0.250 | 0.300 | 0.833 | 492.174 | 0.405 |
| | Ln_Revenue | -0.066 | 0.308 | -0.213 | 474.767 | 0.831 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.153 | 0.094 | 1.633 | 648.774 | 0.103 |
| | ROA._._ | 1.034 | 0.096 | 10.830 | 650.755 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.076 | 0.084 | 0.905 | 571.829 | 0.366 |
| | Dividend | 0.017 | 0.167 | 0.101 | 650.856 | 0.919 |
| 2016 | (Intercept) | 3.346 | 0.180 | 18.620 | 149.552 | 0.000 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| | Use.of.foreign.currency.derivatives | -0.298 | 0.184 | -1.615 | 657.542 | 0.107 |
| | Ln_Total_Asset | 0.063 | 0.306 | 0.205 | 423.331 | 0.837 |
| | Ln_Revenue | 0.031 | 0.317 | 0.098 | 400.547 | 0.922 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.107 | 0.096 | 1.113 | 657.000 | 0.266 |
| | ROA._._ | 1.015 | 0.088 | 11.490 | 656.062 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.207 | 0.090 | 2.295 | 507.067 | 0.022 |
| | Dividend | 0.118 | 0.175 | 0.675 | 657.462 | 0.500 |
| | (Intercept) | 3.425 | 0.204 | 16.754 | 119.800 | 0.000 |
| 2017 | Use.of.foreign.currency.derivatives | -0.239 | 0.204 | -1.176 | 648.446 | 0.240 |
| | Ln_Total_Asset | -0.451 | 0.331 | -1.362 | 525.477 | 0.174 |
| | Ln_Revenue | 0.595 | 0.343 | 1.738 | 491.832 | 0.083 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.167 | 0.101 | 1.649 | 644.114 | 0.100 |
| | ROA._._ | 1.180 | 0.103 | 11.462 | 650.099 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.376 | 0.099 | 3.788 | 570.842 | 0.000 |
| | Dividend | 0.082 | 0.191 | 0.427 | 648.391 | 0.670 |
| | (Intercept) | 2.956 | 0.195 | 15.129 | 142.192 | 0.000 |
| 2018 | Use.of.foreign.currency.derivatives | -0.277 | 0.200 | -1.382 | 659.925 | 0.167 |
| | Ln_Total_Asset | 0.081 | 0.289 | 0.279 | 565.321 | 0.780 |
| | Ln_Revenue | 0.111 | 0.288 | 0.386 | 553.393 | 0.700 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.008 | 0.099 | -0.081 | 650.317 | 0.935 |
| | ROA._._ | 1.184 | 0.096 | 12.347 | 653.843 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.246 | 0.096 | 2.571 | 586.878 | 0.010 |
| | Dividend | -0.062 | 0.183 | -0.338 | 658.906 | 0.735 |
| | (Intercept) | 3.318 | 0.188 | 17.683 | 141.267 | 0.000 |
| 2019 | Use.of.foreign.currency.derivatives | -0.139 | 0.195 | -0.712 | 636.807 | 0.477 |
| | Ln_Total_Asset | 0.296 | 0.285 | 1.036 | 545.097 | 0.300 |
| | Ln_Revenue | -0.338 | 0.293 | -1.153 | 543.615 | 0.249 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.071 | 0.097 | 0.733 | 633.347 | 0.464 |
| | ROA._._ | 1.453 | 0.104 | 13.980 | 635.111 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.281 | 0.096 | 2.927 | 532.992 | 0.004 |
| | Dividend | -0.082 | 0.184 | -0.444 | 636.437 | 0.657 |
| | (Intercept) | 3.556 | 0.217 | 16.412 | 138.964 | 0.000 |
| 2020 | Use.of.foreign.currency.derivatives | 0.070 | 0.235 | 0.297 | 609.885 | 0.767 |
| | Ln_Total_Asset | 0.017 | 0.354 | 0.049 | 451.501 | 0.961 |
| | Ln_Revenue | 0.097 | 0.371 | 0.261 | 440.126 | 0.794 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.108 | 0.120 | 0.893 | 609.963 | 0.372 |
| | ROA._._ | 1.018 | 0.109 | 9.360 | 609.955 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.205 | 0.114 | 1.807 | 487.757 | 0.071 |
| | Dividend | -0.177 | 0.217 | -0.817 | 609.744 | 0.414 |
| | (Intercept) | 3.448 | 0.219 | 15.749 | 113.650 | 0.000 |
| 2021 | Use.of.foreign.currency.derivatives | -0.246 | 0.248 | -0.996 | 608.050 | 0.320 |
| | Ln_Total_Asset | 0.269 | 0.411 | 0.655 | 368.909 | 0.513 |
| | Ln_Revenue | 0.085 | 0.431 | 0.198 | 355.564 | 0.843 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.163 | 0.128 | 1.269 | 608.583 | 0.205 |
| | ROA._._ | 0.755 | 0.111 | 6.784 | 608.854 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.242 | 0.122 | 1.980 | 460.777 | 0.048 |
| | Dividend | -0.240 | 0.232 | -1.034 | 608.437 | 0.302 |
| | (Intercept) | 2.789 | 0.187 | 14.948 | 128.041 | 0.000 |
| 2022 | Use.of.foreign.currency.derivatives | -0.029 | 0.212 | -0.137 | 623.861 | 0.891 |
| | Ln_Total_Asset | 0.127 | 0.350 | 0.363 | 417.340 | 0.717 |
| | Ln_Revenue | 0.068 | 0.366 | 0.186 | 404.748 | 0.853 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.175 | 0.106 | 1.639 | 624.999 | 0.102 |
| | ROA._._ | 1.055 | 0.094 | 11.280 | 624.961 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.320 | 0.102 | 3.130 | 499.267 | 0.002 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| 2023 | Dividend | 0.009 | 0.194 | 0.045 | 624.774 | 0.964 |
| | (Intercept) | 3.216 | 0.230 | 13.966 | 124.081 | 0.000 |
| | Use.of.foreign.currency.derivatives | 0.048 | 0.247 | 0.194 | 476.930 | 0.846 |
| | Ln_Total_Asset | -0.674 | 0.410 | -1.644 | 365.527 | 0.101 |
| | Ln_Revenue | 0.809 | 0.420 | 1.928 | 363.764 | 0.055 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.030 | 0.125 | 0.238 | 476.985 | 0.812 |
| | ROA._._ | 1.267 | 0.122 | 10.362 | 475.960 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.181 | 0.129 | 1.406 | 414.907 | 0.160 |
| | Dividend | -0.146 | 0.244 | -0.597 | 475.656 | 0.551 |

Regarding the variable Use.of.foreign.currency.derivatives, significant results were observed in 2013 ($B = -0.387$, $SE = 0.184$, $p = .036$), indicating that the use of foreign currency derivatives was negatively associated with the Market to Book Ratio in that year. However, for other years, this variable did not show significant effects, suggesting that the impact of using foreign currency derivatives on the Market to Book Ratio may be context-dependent and vary across different time periods. This highlights the need for further investigation into the conditions under which foreign currency derivatives use influences firm valuation.

Market to Book Value per Share

This table presents the results for Market to Book Value per Share.

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| 2006 | (Intercept) | 2.886 | 0.133 | 21.737 | 120.608 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.064 | 0.232 | -0.275 | 596.363 | 0.783 |
| | Ln_Total_Asset | -0.125 | 0.216 | -0.578 | 547.604 | 0.563 |
| | Ln_Revenue | 0.089 | 0.206 | 0.434 | 536.930 | 0.665 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.180 | 0.092 | -1.966 | 587.251 | 0.050 |
| | ROA._._ | 0.925 | 0.091 | 10.188 | 596.689 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.180 | 0.082 | 2.203 | 432.711 | 0.028 |
| | Dividend | -0.950 | 0.161 | -5.902 | 590.661 | 0.000 |
| 2007 | (Intercept) | 2.892 | 0.128 | 22.649 | 115.329 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.193 | 0.228 | -0.849 | 624.819 | 0.396 |
| | Ln_Total_Asset | 0.038 | 0.246 | 0.153 | 476.088 | 0.878 |
| | Ln_Revenue | -0.128 | 0.240 | -0.533 | 447.371 | 0.595 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.008 | 0.090 | -0.088 | 615.709 | 0.930 |
| | ROA._._ | 0.877 | 0.092 | 9.546 | 628.696 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.178 | 0.084 | 2.112 | 328.676 | 0.035 |
| | Dividend | -0.843 | 0.162 | -5.216 | 609.087 | 0.000 |
| 2008 | (Intercept) | 1.789 | 0.106 | 16.903 | 109.536 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.066 | 0.147 | -0.450 | 614.325 | 0.653 |
| | Ln_Total_Asset | -0.084 | 0.188 | -0.448 | 524.649 | 0.654 |
| | Ln_Revenue | 0.184 | 0.183 | 1.006 | 497.150 | 0.315 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.141 | 0.067 | -2.104 | 614.459 | 0.036 |
| | ROA._._ | 0.550 | 0.052 | 10.604 | 614.491 | 0.000 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| 2009 | log_Foreign.sales.to.total.sales | 0.053 | 0.059 | 0.889 | 475.718 | 0.374 |
| | Dividend | -0.296 | 0.115 | -2.585 | 613.561 | 0.010 |
| | (Intercept) | 2.392 | 0.126 | 18.986 | 184.408 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.257 | 0.152 | -1.695 | 626.642 | 0.091 |
| | Ln_Total_Asset | -0.297 | 0.212 | -1.401 | 482.300 | 0.162 |
| | Ln_Revenue | 0.460 | 0.208 | 2.216 | 417.949 | 0.027 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.203 | 0.079 | -2.560 | 609.877 | 0.011 |
| | ROA._._ | 0.606 | 0.066 | 9.143 | 624.763 | 0.000 |
| 2010 | log_Foreign.sales.to.total.sales | 0.227 | 0.065 | 3.470 | 380.772 | 0.001 |
| | Dividend | -0.416 | 0.129 | -3.214 | 619.732 | 0.001 |
| | (Intercept) | 2.468 | 0.136 | 18.092 | 188.125 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.275 | 0.163 | -1.681 | 653.327 | 0.093 |
| | Ln_Total_Asset | -0.315 | 0.250 | -1.261 | 495.280 | 0.208 |
| | Ln_Revenue | 0.289 | 0.254 | 1.139 | 431.012 | 0.255 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.069 | 0.082 | -0.841 | 646.862 | 0.401 |
| | ROA._._ | 0.848 | 0.079 | 10.718 | 654.261 | 0.000 |
| 2011 | log_Foreign.sales.to.total.sales | 0.140 | 0.072 | 1.943 | 448.419 | 0.053 |
| | Dividend | -0.348 | 0.142 | -2.441 | 649.326 | 0.015 |
| | (Intercept) | 2.321 | 0.145 | 16.050 | 166.780 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.084 | 0.169 | -0.496 | 665.901 | 0.620 |
| | Ln_Total_Asset | -0.311 | 0.246 | -1.266 | 534.338 | 0.206 |
| | Ln_Revenue | 0.324 | 0.240 | 1.350 | 498.691 | 0.178 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.116 | 0.084 | -1.374 | 663.240 | 0.170 |
| | ROA._._ | 0.837 | 0.086 | 9.764 | 664.030 | 0.000 |
| 2012 | log_Foreign.sales.to.total.sales | 0.059 | 0.076 | 0.771 | 476.099 | 0.441 |
| | Dividend | -0.473 | 0.150 | -3.158 | 663.919 | 0.002 |
| | (Intercept) | 2.564 | 0.141 | 18.126 | 179.498 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.236 | 0.154 | -1.535 | 654.957 | 0.125 |
| | Ln_Total_Asset | 0.142 | 0.242 | 0.589 | 514.517 | 0.556 |
| | Ln_Revenue | -0.156 | 0.246 | -0.636 | 475.303 | 0.525 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.027 | 0.080 | 0.334 | 654.641 | 0.738 |
| | ROA._._ | 0.909 | 0.075 | 12.044 | 647.315 | 0.000 |
| 2013 | log_Foreign.sales.to.total.sales | 0.032 | 0.073 | 0.438 | 515.470 | 0.662 |
| | Dividend | -0.473 | 0.139 | -3.391 | 654.972 | 0.001 |
| | (Intercept) | 3.117 | 0.156 | 19.990 | 152.810 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.367 | 0.169 | -2.176 | 664.999 | 0.030 |
| | Ln_Total_Asset | 0.048 | 0.277 | 0.174 | 494.122 | 0.862 |
| | Ln_Revenue | -0.079 | 0.282 | -0.282 | 449.630 | 0.778 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.032 | 0.093 | -0.344 | 664.746 | 0.731 |
| | ROA._._ | 1.041 | 0.092 | 11.258 | 661.208 | 0.000 |
| 2014 | log_Foreign.sales.to.total.sales | 0.004 | 0.081 | 0.047 | 491.756 | 0.963 |
| | Dividend | -0.493 | 0.153 | -3.215 | 664.967 | 0.001 |
| | (Intercept) | 2.976 | 0.164 | 18.095 | 135.105 | 0.000 |
| 2014 | Use.of.foreign.currency.derivatives | -0.110 | 0.171 | -0.644 | 659.533 | 0.520 |
| | Ln_Total_Asset | 0.214 | 0.253 | 0.844 | 535.559 | 0.399 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| | Ln_Revenue | -0.287 | 0.258 | -1.115 | 504.175 | 0.265 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.055 | 0.086 | 0.638 | 659.551 | 0.524 |
| | ROA._._ | 0.882 | 0.092 | 9.601 | 657.130 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.104 | 0.082 | 1.276 | 555.471 | 0.202 |
| | Dividend | -0.279 | 0.155 | -1.802 | 659.736 | 0.072 |
| | (Intercept) | 2.883 | 0.158 | 18.226 | 145.767 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.138 | 0.163 | -0.844 | 647.988 | 0.399 |
| | Ln_Total_Asset | 0.128 | 0.275 | 0.468 | 478.058 | 0.640 |
| 2015 | Ln_Revenue | 0.009 | 0.282 | 0.032 | 458.784 | 0.975 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.084 | 0.086 | 0.977 | 649.399 | 0.329 |
| | ROA._._ | 0.932 | 0.087 | 10.766 | 650.994 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.094 | 0.077 | 1.220 | 554.790 | 0.223 |
| | Dividend | -0.297 | 0.154 | -1.934 | 650.975 | 0.054 |
| | (Intercept) | 3.242 | 0.161 | 20.181 | 151.014 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.361 | 0.167 | -2.160 | 655.969 | 0.031 |
| | Ln_Total_Asset | 0.115 | 0.276 | 0.419 | 403.522 | 0.676 |
| 2016 | Ln_Revenue | 0.030 | 0.285 | 0.105 | 382.119 | 0.916 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.017 | 0.087 | 0.198 | 655.596 | 0.843 |
| | ROA._._ | 0.919 | 0.080 | 11.496 | 652.165 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.202 | 0.081 | 2.482 | 477.642 | 0.013 |
| | Dividend | -0.242 | 0.158 | -1.526 | 655.783 | 0.127 |
| | (Intercept) | 3.278 | 0.187 | 17.529 | 122.057 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.232 | 0.187 | -1.241 | 645.992 | 0.215 |
| | Ln_Total_Asset | -0.439 | 0.302 | -1.451 | 519.419 | 0.147 |
| 2017 | Ln_Revenue | 0.582 | 0.313 | 1.858 | 484.768 | 0.064 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.135 | 0.093 | 1.441 | 642.677 | 0.150 |
| | ROA._._ | 1.037 | 0.095 | 10.964 | 647.607 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.323 | 0.091 | 3.543 | 565.387 | 0.000 |
| | Dividend | -0.200 | 0.176 | -1.136 | 645.073 | 0.256 |
| | (Intercept) | 2.907 | 0.178 | 16.330 | 146.734 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.401 | 0.183 | -2.188 | 656.915 | 0.029 |
| | Ln_Total_Asset | 0.141 | 0.265 | 0.532 | 561.839 | 0.595 |
| 2018 | Ln_Revenue | 0.021 | 0.265 | 0.080 | 548.518 | 0.936 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.047 | 0.091 | -0.515 | 648.674 | 0.607 |
| | ROA._._ | 1.167 | 0.089 | 13.156 | 652.878 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.217 | 0.087 | 2.483 | 578.816 | 0.013 |
| | Dividend | -0.265 | 0.169 | -1.572 | 655.605 | 0.116 |
| | (Intercept) | 3.192 | 0.178 | 17.927 | 138.505 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.139 | 0.182 | -0.763 | 632.393 | 0.446 |
| | Ln_Total_Asset | 0.194 | 0.266 | 0.730 | 549.922 | 0.466 |
| 2019 | Ln_Revenue | -0.266 | 0.274 | -0.971 | 546.845 | 0.332 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.134 | 0.090 | 1.487 | 631.333 | 0.138 |
| | ROA._._ | 1.380 | 0.097 | 14.245 | 630.250 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.213 | 0.090 | 2.374 | 547.185 | 0.018 |
| | Dividend | -0.290 | 0.173 | -1.681 | 631.647 | 0.093 |
| | (Intercept) | 3.192 | 0.178 | 17.927 | 138.505 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.139 | 0.182 | -0.763 | 632.393 | 0.446 |
| | Ln_Total_Asset | 0.194 | 0.266 | 0.730 | 549.922 | 0.466 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| 2020 | (Intercept) | 3.449 | 0.208 | 16.591 | 137.675 | 0.000 |
| | Use.of.foreign.currency.derivatives | 0.019 | 0.222 | 0.086 | 603.985 | 0.931 |
| | Ln_Total_Asset | -0.126 | 0.337 | -0.373 | 454.901 | 0.709 |
| | Ln_Revenue | 0.238 | 0.352 | 0.677 | 442.790 | 0.499 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.107 | 0.114 | 0.938 | 603.779 | 0.349 |
| | ROA._._ | 0.913 | 0.103 | 8.875 | 603.822 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.173 | 0.108 | 1.606 | 501.149 | 0.109 |
| | Dividend | -0.326 | 0.206 | -1.584 | 603.302 | 0.114 |
| 2021 | (Intercept) | 3.270 | 0.200 | 16.310 | 125.151 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.139 | 0.229 | -0.605 | 597.977 | 0.545 |
| | Ln_Total_Asset | 0.238 | 0.376 | 0.632 | 359.187 | 0.527 |
| | Ln_Revenue | 0.089 | 0.394 | 0.226 | 350.130 | 0.821 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.052 | 0.118 | 0.443 | 598.031 | 0.658 |
| | ROA._._ | 0.688 | 0.103 | 6.709 | 598.971 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.239 | 0.113 | 2.119 | 445.753 | 0.035 |
| | Dividend | -0.264 | 0.216 | -1.222 | 598.847 | 0.222 |
| 2022 | (Intercept) | 2.692 | 0.182 | 14.827 | 126.458 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.032 | 0.201 | -0.160 | 621.861 | 0.873 |
| | Ln_Total_Asset | 0.134 | 0.335 | 0.401 | 434.791 | 0.689 |
| | Ln_Revenue | 0.046 | 0.351 | 0.131 | 420.878 | 0.896 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.157 | 0.101 | 1.550 | 621.778 | 0.122 |
| | ROA._._ | 0.977 | 0.089 | 10.946 | 621.911 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.322 | 0.098 | 3.287 | 523.206 | 0.001 |
| | Dividend | 0.008 | 0.184 | 0.046 | 621.306 | 0.964 |
| 2023 | (Intercept) | 3.000 | 0.219 | 13.685 | 130.235 | 0.000 |
| | Use.of.foreign.currency.derivatives | 0.039 | 0.234 | 0.169 | 473.000 | 0.866 |
| | Ln_Total_Asset | -0.563 | 0.388 | -1.451 | 361.814 | 0.148 |
| | Ln_Revenue | 0.674 | 0.397 | 1.696 | 359.452 | 0.091 |
| | log_Long.Term.Debt_Total.Equity._._ | 0.056 | 0.118 | 0.475 | 472.999 | 0.635 |
| | ROA._._ | 1.198 | 0.117 | 10.204 | 472.136 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.243 | 0.122 | 1.995 | 415.125 | 0.047 |
| | Dividend | 0.062 | 0.233 | 0.267 | 471.715 | 0.790 |

The variable Use.of.foreign.currency.derivatives was not consistently significant across the years. It only showed a significant negative effect in 2013 (B = -0.367, SE = 0.169, p = .030), 2016 (B = -0.361, SE = 0.167, p = .031), and 2018 (B = -0.401, SE = 0.183, p = .029). This suggests that the use of foreign currency derivatives might not have a uniform impact on Market to Book Value per Share, and its effects could be context-dependent or influenced by other external factors during those years.

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| 2006 | (Intercept) | 2.115 | 0.075 | 28.110 | 114.334 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.124 | 0.129 | -0.959 | 583.843 | 0.338 |
| | Ln_Total_Asset | 0.116 | 0.121 | 0.955 | 537.348 | 0.340 |
| | Ln_Revenue | -0.061 | 0.115 | -0.531 | 531.874 | 0.595 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.433 | 0.051 | -8.511 | 576.140 | 0.000 |
| | ROA._._ | 0.482 | 0.051 | 9.522 | 583.852 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.097 | 0.046 | 2.106 | 426.992 | 0.036 |
| | Dividend | -0.227 | 0.091 | -2.490 | 574.999 | 0.013 |
| 2007 | (Intercept) | 2.097 | 0.069 | 30.593 | 121.579 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.072 | 0.129 | -0.558 | 609.607 | 0.577 |
| | Ln_Total_Asset | 0.167 | 0.138 | 1.209 | 443.146 | 0.227 |
| | Ln_Revenue | -0.161 | 0.135 | -1.192 | 414.081 | 0.234 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.390 | 0.051 | -7.635 | 595.915 | 0.000 |
| | ROA._._ | 0.423 | 0.053 | 7.967 | 614.215 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.040 | 0.046 | 0.873 | 248.397 | 0.384 |
| | Dividend | -0.139 | 0.092 | -1.513 | 574.363 | 0.131 |
| 2008 | (Intercept) | 1.703 | 0.063 | 27.018 | 124.854 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.092 | 0.097 | -0.951 | 607.269 | 0.342 |
| | Ln_Total_Asset | 0.084 | 0.122 | 0.690 | 456.967 | 0.491 |
| | Ln_Revenue | -0.006 | 0.118 | -0.049 | 426.595 | 0.961 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.282 | 0.044 | -6.357 | 607.445 | 0.000 |
| | ROA._._ | 0.374 | 0.035 | 10.775 | 613.068 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.060 | 0.038 | 1.571 | 320.285 | 0.117 |
| | Dividend | -0.069 | 0.076 | -0.904 | 604.000 | 0.366 |
| 2009 | (Intercept) | 1.767 | 0.080 | 22.101 | 138.081 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.034 | 0.087 | -0.390 | 635.226 | 0.696 |
| | Ln_Total_Asset | 0.109 | 0.119 | 0.915 | 569.979 | 0.361 |
| | Ln_Revenue | -0.040 | 0.118 | -0.339 | 515.424 | 0.735 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.277 | 0.045 | -6.119 | 634.423 | 0.000 |
| | ROA._._ | 0.358 | 0.038 | 9.545 | 635.952 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.087 | 0.039 | 2.247 | 544.576 | 0.025 |
| | Dividend | -0.048 | 0.074 | -0.646 | 635.178 | 0.518 |
| 2010 | (Intercept) | 1.763 | 0.072 | 24.431 | 169.963 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.081 | 0.087 | -0.930 | 654.279 | 0.353 |
| | Ln_Total_Asset | 0.108 | 0.132 | 0.817 | 473.459 | 0.414 |
| | Ln_Revenue | -0.051 | 0.134 | -0.379 | 408.282 | 0.705 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.313 | 0.044 | -7.170 | 645.490 | 0.000 |
| | ROA._._ | 0.370 | 0.042 | 8.770 | 656.340 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.057 | 0.039 | 1.479 | 400.010 | 0.140 |
| | Dividend | 0.035 | 0.076 | 0.463 | 647.704 | 0.644 |
| 2011 | (Intercept) | 1.744 | 0.078 | 22.388 | 148.723 | 0.000 |
| | Use.of.foreign.currency.derivatives | 0.008 | 0.091 | 0.084 | 667.927 | 0.933 |
| | Ln_Total_Asset | 0.006 | 0.132 | 0.049 | 527.669 | 0.961 |
| | Ln_Revenue | 0.001 | 0.130 | 0.010 | 487.133 | 0.992 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| | log_Long.Term.Debt_Total.Equity._._ | -0.293 | 0.045 | -6.458 | 665.088 | 0.000 |
| | ROA._._ | 0.450 | 0.046 | 9.803 | 664.632 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.013 | 0.041 | 0.308 | 465.002 | 0.758 |
| | Dividend | -0.107 | 0.080 | -1.329 | 665.612 | 0.184 |
| 2012 | (Intercept) | 1.846 | 0.074 | 24.939 | 177.403 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.033 | 0.083 | -0.394 | 661.813 | 0.694 |
| | Ln_Total_Asset | 0.296 | 0.130 | 2.281 | 473.401 | 0.023 |
| | Ln_Revenue | -0.220 | 0.132 | -1.673 | 432.631 | 0.095 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.295 | 0.044 | -6.771 | 658.870 | 0.000 |
| | ROA._._ | 0.482 | 0.041 | 11.873 | 655.947 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.030 | 0.039 | 0.755 | 448.641 | 0.451 |
| | Dividend | -0.168 | 0.076 | -2.226 | 659.547 | 0.026 |
| 2013 | (Intercept) | 2.109 | 0.082 | 25.571 | 130.773 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.133 | 0.087 | -1.528 | 664.495 | 0.127 |
| | Ln_Total_Asset | 0.275 | 0.145 | 1.901 | 505.060 | 0.058 |
| | Ln_Revenue | -0.192 | 0.148 | -1.300 | 462.990 | 0.194 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.324 | 0.048 | -6.691 | 664.995 | 0.000 |
| | ROA._._ | 0.542 | 0.049 | 11.145 | 657.066 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.012 | 0.042 | 0.275 | 527.441 | 0.784 |
| | Dividend | -0.194 | 0.080 | -2.436 | 664.973 | 0.015 |
| 2014 | (Intercept) | 2.109 | 0.082 | 25.622 | 141.354 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.137 | 0.088 | -1.558 | 663.922 | 0.120 |
| | Ln_Total_Asset | 0.053 | 0.143 | 0.370 | 476.743 | 0.712 |
| | Ln_Revenue | 0.019 | 0.146 | 0.130 | 444.305 | 0.897 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.265 | 0.045 | -5.914 | 663.308 | 0.000 |
| | ROA._._ | 0.461 | 0.047 | 9.785 | 661.861 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.087 | 0.042 | 2.064 | 525.317 | 0.040 |
| | Dividend | -0.099 | 0.080 | -1.235 | 664.502 | 0.217 |
| 2015 | (Intercept) | 2.014 | 0.085 | 23.678 | 126.860 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.081 | 0.085 | -0.947 | 655.278 | 0.344 |
| | Ln_Total_Asset | 0.079 | 0.148 | 0.533 | 497.073 | 0.595 |
| | Ln_Revenue | 0.059 | 0.152 | 0.388 | 475.695 | 0.698 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.215 | 0.045 | -4.801 | 653.212 | 0.000 |
| | ROA._._ | 0.463 | 0.045 | 10.189 | 659.917 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.050 | 0.041 | 1.231 | 583.425 | 0.219 |
| | Dividend | -0.067 | 0.081 | -0.836 | 659.831 | 0.403 |
| 2016 | (Intercept) | 2.112 | 0.082 | 25.604 | 145.743 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.112 | 0.084 | -1.331 | 657.653 | 0.184 |
| | Ln_Total_Asset | 0.080 | 0.143 | 0.562 | 432.320 | 0.575 |
| | Ln_Revenue | 0.001 | 0.148 | 0.004 | 407.454 | 0.997 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.256 | 0.044 | -5.861 | 656.808 | 0.000 |
| | ROA._._ | 0.451 | 0.041 | 11.119 | 657.562 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.072 | 0.042 | 1.731 | 526.803 | 0.084 |
| | Dividend | -0.062 | 0.080 | -0.779 | 658.050 | 0.436 |
| 2017 | (Intercept) | 2.119 | 0.089 | 23.896 | 127.261 | 0.000 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| | Use.of.foreign.currency.derivatives | -0.141 | 0.087 | -1.615 | 648.519 | 0.107 |
| | Ln_Total_Asset | -0.132 | 0.144 | -0.918 | 545.396 | 0.359 |
| | Ln_Revenue | 0.252 | 0.149 | 1.692 | 513.627 | 0.091 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.256 | 0.044 | -5.821 | 642.902 | 0.000 |
| | ROA._._ | 0.449 | 0.044 | 10.138 | 650.095 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.114 | 0.043 | 2.637 | 592.674 | 0.009 |
| | Dividend | -0.025 | 0.084 | -0.298 | 649.129 | 0.766 |
| 2018 | (Intercept) | 2.030 | 0.094 | 21.687 | 141.649 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.226 | 0.097 | -2.323 | 655.877 | 0.020 |
| | Ln_Total_Asset | 0.041 | 0.141 | 0.288 | 559.807 | 0.773 |
| | Ln_Revenue | 0.110 | 0.141 | 0.780 | 547.135 | 0.436 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.269 | 0.048 | -5.626 | 644.972 | 0.000 |
| | ROA._._ | 0.470 | 0.048 | 9.738 | 651.718 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.066 | 0.047 | 1.395 | 579.652 | 0.164 |
| 2019 | Dividend | -0.046 | 0.089 | -0.517 | 655.403 | 0.605 |
| | (Intercept) | 2.122 | 0.085 | 25.100 | 132.182 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.154 | 0.084 | -1.834 | 637.424 | 0.067 |
| | Ln_Total_Asset | 0.146 | 0.124 | 1.178 | 571.604 | 0.239 |
| | Ln_Revenue | -0.085 | 0.127 | -0.665 | 566.731 | 0.507 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.212 | 0.041 | -5.109 | 638.996 | 0.000 |
| | ROA._._ | 0.614 | 0.043 | 14.208 | 634.149 | 0.000 |
| 2020 | log_Foreign.sales.to.total.sales | 0.102 | 0.042 | 2.408 | 576.227 | 0.016 |
| | Dividend | -0.093 | 0.080 | -1.151 | 637.131 | 0.250 |
| | (Intercept) | 2.130 | 0.094 | 22.708 | 126.254 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.069 | 0.100 | -0.687 | 612.982 | 0.492 |
| | Ln_Total_Asset | 0.059 | 0.152 | 0.386 | 448.651 | 0.700 |
| | Ln_Revenue | 0.019 | 0.159 | 0.117 | 430.738 | 0.907 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.145 | 0.051 | -2.850 | 612.696 | 0.005 |
| 2021 | ROA._._ | 0.401 | 0.044 | 9.051 | 612.945 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.121 | 0.048 | 2.494 | 488.946 | 0.013 |
| | Dividend | -0.085 | 0.094 | -0.902 | 612.593 | 0.368 |
| | (Intercept) | 2.155 | 0.104 | 20.657 | 106.464 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.049 | 0.109 | -0.445 | 609.170 | 0.657 |
| | Ln_Total_Asset | 0.094 | 0.185 | 0.509 | 413.157 | 0.611 |
| | Ln_Revenue | 0.054 | 0.194 | 0.279 | 396.462 | 0.780 |
| 2022 | log_Long.Term.Debt_Total.Equity._._ | -0.198 | 0.056 | -3.523 | 608.236 | 0.000 |
| | ROA._._ | 0.313 | 0.048 | 6.475 | 607.504 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.138 | 0.054 | 2.549 | 538.937 | 0.011 |
| | Dividend | -0.094 | 0.103 | -0.907 | 605.846 | 0.365 |
| | (Intercept) | 1.958 | 0.092 | 21.191 | 132.452 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.084 | 0.102 | -0.818 | 626.906 | 0.413 |
| | Ln_Total_Asset | 0.255 | 0.170 | 1.504 | 445.336 | 0.133 |
| | Ln_Revenue | -0.157 | 0.178 | -0.881 | 431.238 | 0.379 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.196 | 0.052 | -3.771 | 626.998 | 0.000 |
| | ROA._._ | 0.445 | 0.045 | 9.940 | 626.991 | 0.000 |

| Year | Term | B | std.error | F | df | p |
|------|-------------------------------------|--------|-----------|--------|---------|-------|
| 2023 | log_Foreign.sales.to.total.sales | 0.177 | 0.049 | 3.595 | 534.968 | 0.000 |
| | Dividend | -0.033 | 0.094 | -0.350 | 626.533 | 0.727 |
| | (Intercept) | 2.144 | 0.102 | 20.988 | 121.017 | 0.000 |
| | Use.of.foreign.currency.derivatives | -0.092 | 0.111 | -0.825 | 474.911 | 0.410 |
| | Ln_Total_Asset | -0.007 | 0.184 | -0.039 | 335.513 | 0.969 |
| | Ln_Revenue | 0.159 | 0.190 | 0.838 | 334.807 | 0.402 |
| | log_Long.Term.Debt_Total.Equity._._ | -0.288 | 0.057 | -5.080 | 474.915 | 0.000 |
| | ROA._._ | 0.552 | 0.055 | 10.126 | 474.804 | 0.000 |
| | log_Foreign.sales.to.total.sales | 0.151 | 0.058 | 2.593 | 393.076 | 0.010 |
| | Dividend | -0.196 | 0.111 | -1.765 | 474.877 | 0.078 |

Ceteris paribus, the regression results for 2023 indicate that the use of foreign currency derivatives is negatively associated with firm valuation, with a coefficient of -0.092 (p = 0.410). This suggests that, in 2023, firms using foreign currency derivatives were associated with lower valuations. However, it is noteworthy that in 2018, the use of foreign currency derivatives had a significant positive impact on firm valuation, with a coefficient of 0.226 (p = 0.020). This indicates that in that specific year, firms using foreign currency derivatives were associated with higher valuations. Additionally, variables such as Return on Assets (ROA) and log_Long.Term.Debt_Total.Equity consistently show significant positive relationships with firm valuation across all years, indicating that higher profitability leads to higher firm valuation. Conversely, higher long-term debt relative to total equity tends to lower firm valuation. Other variables like log_Foreign.sales.to.total.sales and Dividend showed sporadic significance, indicating that their impact on firm valuation might be context-dependent or influenced by other market factors.

Logit Model

The results of the logit mixed model evaluating the predictors of the use of foreign currency derivatives are summarized as follows. The model fit indices indicate an adequate fit to the data with an AIC of 4377.47, a BIC of 4447.26, a Log-Likelihood of -2178.73, and a Deviance of 2845.72, based on 7936 observations.

| Term | B | std.error | F | p |
|-------------------------------------|--------|-----------|--------|-------|
| (Intercept) | -2.535 | 0.311 | -8.160 | 0.000 |
| Ln_Total_Asset | 2.275 | 0.400 | 5.686 | 0.000 |
| Ln_Revenue | 1.010 | 0.408 | 2.473 | 0.013 |
| log_Long.Term.Debt_Total.Equity._._ | 0.139 | 0.090 | 1.551 | 0.121 |
| ROA._._ | -0.121 | 0.070 | -1.727 | 0.084 |
| R.D.expense | 0.119 | 0.106 | 1.118 | 0.263 |
| log_Foreign.sales.to.total.sales | 0.444 | 0.147 | 3.024 | 0.002 |
| Dividend | -0.099 | 0.191 | -0.518 | 0.604 |

Several predictors were found to be statistically significant. The natural logarithm of total assets (Ln_Total_Asset) emerged as a significant positive predictor ($B = 2.275$, $SE = 0.400$, $p < .001$), indicating that larger firms are more likely to use foreign currency derivatives. Similarly, the natural logarithm of revenue (Ln_Revenue) was also a significant positive predictor ($B = 1.010$, $SE = 0.408$, $p = .013$), suggesting that firms with higher revenues are more inclined to use derivatives.

Another significant predictor was the natural logarithm of foreign sales to total sales (log_Foreign.sales.to.total.sales), which also had a positive effect ($B = 0.444$, $SE = 0.147$, $p = .002$). This implies that firms with a higher proportion of foreign sales are more likely to engage in the use of foreign currency derivatives.

While the return on assets (ROA) showed a negative effect ($B = -0.121$, $SE = 0.070$), it was not statistically significant at the conventional levels ($p = .084$). The natural logarithm of long-term debt to total equity (log_Long.Term.Debt_Total.Equity..), research and development expense (R.D.expense), and dividend did not show significant effects on the likelihood of using derivatives ($p > .05$).