SHEET1

**Regression Analysis: CPI versus Unemployment Rate, Cargo Volume, Wheat Market Price, Time\_1, Time\_2**

**Regression Equation**

|  |  |  |
| --- | --- | --- |
| CPI | = | 98.59 + 0.919 Unemployment Rate - 0.0492 Cargo Volume - 0.1035 Wheat Market Price - 0.0676 Time\_1 + 0.001258 Time\_2 |

**Coefficients**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Term** | **Coef** | **SE Coef** | **T-Value** | **P-Value** | **VIF** |
| Constant | 98.59 | 2.59 | 38.12 | 0.000 |  |
| Unemployment Rate | 0.919 | 0.484 | 1.90 | 0.064 | 1.35 |
| Cargo Volume | -0.0492 | 0.0112 | -4.40 | 0.000 | 1.36 |
| Wheat Market Price | -0.1035 | 0.0854 | -1.21 | 0.232 | 11.06 |
| Time\_1 | -0.0676 | 0.0422 | -1.60 | 0.116 | 18.71 |
| Time\_2 | 0.001258 | 0.000992 | 1.27 | 0.212 | 26.48 |

**Model Summary**

|  |  |  |  |
| --- | --- | --- | --- |
| **S** | **R-sq** | **R-sq(adj)** | **R-sq(pred)** |
| 0.935304 | 57.06% | 51.95% | 39.84% |

**Analysis of Variance**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **DF** | **Adj SS** | **Adj MS** | **F-Value** | **P-Value** |
| Regression | 5 | 48.818 | 9.7636 | 11.16 | 0.000 |
| Unemployment Rate | 1 | 3.155 | 3.1549 | 3.61 | 0.064 |
| Cargo Volume | 1 | 16.916 | 16.9164 | 19.34 | 0.000 |
| Wheat Market Price | 1 | 1.285 | 1.2851 | 1.47 | 0.232 |
| Time\_1 | 1 | 2.247 | 2.2474 | 2.57 | 0.116 |
| Time\_2 | 1 | 1.406 | 1.4055 | 1.61 | 0.212 |
| Error | 42 | 36.741 | 0.8748 |  |  |
| Total | 47 | 85.559 |  |  |  |

**Fits and Diagnostics for Unusual Observations**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Obs** | **CPI** | **Fit** | **Resid** | **Std Resid** |  |  |
| 2 | 101.500 | 103.371 | -1.871 | -2.17 | R |  |
| 11 | 104.500 | 102.453 | 2.047 | 2.25 | R |  |
| 12 | 104.500 | 102.572 | 1.928 | 2.13 | R |  |
| 23 | 99.500 | 101.568 | -2.068 | -2.31 | R |  |
| 26 | 99.800 | 98.722 | 1.078 | 1.76 |  | X |

*R  Large residual  
X  Unusual X*

**Durbin-Watson Statistic**

|  |  |
| --- | --- |
| Durbin-Watson Statistic = | 0.550556 |

