SHEET1

**Regression Analysis: CPI versus Unemployment Rate, Cargo Volume, Wheat Market Price**

**Regression Equation**

|  |  |  |
| --- | --- | --- |
| CPI | = | 98.52 + 0.821 Unemployment Rate - 0.0545 Cargo Volume - 0.1103 Wheat Market Price |

**Coefficients**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Term** | **Coef** | **SE Coef** | **T-Value** | **P-Value** | **VIF** |
| Constant | 98.52 | 2.44 | 40.38 | 0.000 |  |
| Unemployment Rate | 0.821 | 0.458 | 1.79 | 0.080 | 1.19 |
| Cargo Volume | -0.0545 | 0.0102 | -5.34 | 0.000 | 1.11 |
| Wheat Market Price | -0.1103 | 0.0269 | -4.11 | 0.000 | 1.08 |

**Model Summary**

|  |  |  |  |
| --- | --- | --- | --- |
| **S** | **R-sq** | **R-sq(adj)** | **R-sq(pred)** |
| 0.941353 | 54.43% | 51.32% | 42.63% |

**Analysis of Variance**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **DF** | **Adj SS** | **Adj MS** | **F-Value** | **P-Value** |
| Regression | 3 | 46.569 | 15.5229 | 17.52 | 0.000 |
| Unemployment Rate | 1 | 2.852 | 2.8519 | 3.22 | 0.080 |
| Cargo Volume | 1 | 25.283 | 25.2827 | 28.53 | 0.000 |
| Wheat Market Price | 1 | 14.951 | 14.9511 | 16.87 | 0.000 |
| Error | 44 | 38.990 | 0.8861 |  |  |
| Total | 47 | 85.559 |  |  |  |

**Fits and Diagnostics for Unusual Observations**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Obs** | **CPI** | **Fit** | **Resid** | **Std Resid** |  |  |
| 11 | 104.500 | 102.446 | 2.054 | 2.24 | R |  |
| 12 | 104.500 | 102.599 | 1.901 | 2.07 | R |  |
| 14 | 105.200 | 104.985 | 0.215 | 0.27 |  | X |
| 23 | 99.500 | 101.801 | -2.301 | -2.48 | R |  |
| 26 | 99.800 | 98.615 | 1.185 | 1.86 |  | X |

*R  Large residual  
X  Unusual X*

**Durbin-Watson Statistic**

|  |  |
| --- | --- |
| Durbin-Watson Statistic = | 0.557007 |

