

## Fitting the Model

- Open file **Global Broadband.dxp**
  - Go to **Tools > Regression Modeling**
    - **Name** the model MyModel01
    - Add a **Comment** “Assumes parametric statistical methods can be applied”
    - Choose Linear Regression **Model Method**
    - Choose the **Data Table**: Training Countries
    - On the General Tab
      - Response column: Fixed broadband Internet subscribers
      - Predictor columns: Consumer price index, Cost to export, Cost to import, Internet users, Mobile cellular subscriptions, Rural population, Telephone lines, and Urban population
      - Choose Linear: X
      - Click Add
    - Click OK
  - Evaluate MyModel01 Model Summary and diagnostic visualizations
  - Go to **Tools > Regression Modeling**
    - **Name** the model MyModel02
    - Add a **Comment** “Applies nonparametric statistical methods”
    - Choose Regression Tree **Model Method**
    - Choose the Data Table: Training Countries
    - On the **General** Tab
      - Response column: Fixed broadband Internet subscribers
      - Predictor columns: Consumer price index, Cost to export, Cost to import, Internet users, Mobile cellular subscriptions, Rural population, Telephone lines, and Urban population
      - Choose Linear: X
      - Click Add
    - Click OK
  - Evaluate MyModel02 Model Summary and diagnostic visualizations

## Evaluating the Model

- Go to the Country Partitioning Page
  - Go to **View > Analytic Models**
    - Click on the icon to **Evaluate** the Linear Regression Model
      - Select data table: Validation Countries
      - Note all columns are named the same as the Training data table
      - Click OK
    - Examine how the model fits the new data
    - Go to the My Model02 tab
      - Click on the icon in the Title bar of the Model Summary to Evaluate the model
      - Select data table: Validation Countries

- Note all columns are named the same as the Training data table
  - Click OK
- Examine how the model fits the new data
  - Notice the R- squared value and Sum of Squares Error both suggest that this model does not fit the data as well as our first model

## Predicting from the Model

- Go to the Country Partitioning tab
  - Go to the **Analytic Model** Panel > MyModel01 Model Method
  - Click on the icon to **Predict**
    - Choose the **Data table** Broadband Unreported
    - **Match** the Consumer Price Index column with the CPI column
    - Click OK
  - Activate the Broadband Unreported Data table > Click the icon to **Maximize Active**
    - Notice the new column: Predicted Column
    - Add the Filters Panel
      - Choose the filters associated with the Broadband Unreported data table
      - Scroll to the bottom
      - Right click on the Predicted Column filter
      - Rename: Predicted fixed broadband Internet subscribers