Table 4. Summary of Statistical Models Used in the Generation of Seasonally Adjusted CPI

(2012=100)

January 2012 – April 2021

| **Series Name/**  **Geographic Area Covered** | | **Statistical Models/Options** | | **Summary Measures** |
| --- | --- | --- | --- | --- |
| All Items – PHILS | | Multiplicative  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 3.806  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.97  Check: M7, M8, M9, M10, M11 |
| All Items – NCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 1.122  MAVS: 3x5 MA  MAVTC: 9-term MA | | Rejected at level 1.17  Check: M7, M8, M9, M10, M11 |
| All Items – AONCR | | Multiplicative  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 2.999  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.97  Check: M4, M7, M8, M9, M10, M11 |
| Food and Non-alcoholic Beverages – PHILS | | Multiplicative  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 8.060  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.66  Check: M8, M9, M10, M11 |
| Food and Non-alcoholic Beverages – NCR | | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 8.740  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.72  Check: M8, M9, M10, M11 |
| Food and Non-alcoholic Beverages – AONCR | | Multiplicative  Model: (0,1,2)(0,1,1)  With transformation - none  F-value: 7.404  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.70  Check: M8, M9, M10, M11 |
| Alcoholic Beverages and Tobacco – PHILS | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 12.813  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.46  Check: M4, M10, M11 |
| Alcoholic Beverages and Tobacco – NCR | | Multiplicative  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 14.343  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.47  Check: M4, M8, M10, M11 |
| Alcoholic Beverages and Tobacco – AONCR | | Additive  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 11.589  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.47  Check: M4, M10, M11 |
| Non-Food – PHILS | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-Value: 2.230  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.75  Check: M7, M8, M10, M11 |
| Non-Food – NCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-Value: 2.474  MAVS: 3x9 MA  MAVTC: 9-term MA | | Accepted at level 0.65  Check: M6, M7 |
|  | | | | |
| Non-Food – AONCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-Value: 1.604  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.87  Check: M7, M8, M9, M10, M11 | |
| Clothing and Footwear - PHILS | | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 4.538  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.78  Check: M7, M8, M9, M10, M11 | |
| Clothing and Footwear - NCR | | Additive  Model: None  With transformation - none  F-value: 2.618  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.79  Check: M7, M8, M9, M10, M11 | |
| Clothing and Footwear - AONCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 3.576  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.90  Check: M7, M8, M9, M10, M11 | |
| Housing, Water, Electricity, Gas and Other Fuels - PHILS | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 7.799  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.51  Check: M10 | |
| Housing, Water, Electricity, Gas and Other Fuels - NCR | | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-value: 5.717  MAVS: 3X9 MA  MAVTC: 13-term MA | | Accepted at level 0.83  Check: M1, M7 | |
| Housing, Water, Electricity, Gas and Other Fuels - AONCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 7.006  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.66  Check: M4, M8, M10, M11 | |
| Furnishing, Household Equipment and Routine Maintenance of the House -PHILS | | Additive  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 8.684  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.56  Check: M7, M8, M9, M10, M11 | |
| Furnishing, Household Equipment and Routine Maintenance of the House -NCR | | Additive  Model: (0,1,2)(0,1,1)  With transformation – none  F-value: 5.410  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.82  Check: M7, M8, M9, M10, M11 | |
| Furnishing, Household Equipment and Routine Maintenance of the House -AONCR | | Additive  Model: (0,2,2)(0,1,1)  With transformation - none  F-value: 5.049  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.63  Check: M7, M8, M9, M10, M11 | |
| Health – PHILS | | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation – none  F-value: 8.145  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.56  Check: M8, M9, M10, M11 | |
| Health –NCR | | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 13.048  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.59  Check: M8, M10, M11 | |
| Health – AONCR | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 3.847  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.66  Check: M7, M8, M9, M10, M11 | |
| Transport – NCR | | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 2.674  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.95  Check: M4, M7, M8, M10, M11 | |
| Recreation and Culture - PHILS | | Multiplicative  Model: (0,1,2)(0,1,1)  With transformation – none  F-value: 4.193  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.85  Check: M4, M7, M8, M9, M10 | |
| Recreation and Culture - NCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation – none  F-value: 7.527  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.72  Check: M7, M8, M9, M10, M11 | |
| Recreation and Culture - AONCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation –none  F-value: 3.717  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.83  Check: M7, M8, M9, M10 | |
| Education – PHILS | | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-value: 14.364  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.54  Check: M4, M10, M11 | |
| Education –NCR | | Multiplicative  Model: None  With transformation - none  F-value: 55.196  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.34  Check: M4 | |
| Education - AONCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 8.736  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.66  Check: M4, M7, M8, M10, M11 | |
| Restaurant and Miscellaneous Goods and Services - PHILS | | Additive  Model: (0,2,2)(0,1,1)  With transformation - none  F-value: 2.329  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.70  Check: M7, M8, M9, M10, M11 | |
| Restaurant and Miscellaneous  Goods and Services – NCR | | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 3.180  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.71  Check: M4, M7, M8, M10, M11 | |
| Restaurant and Miscellaneous  Goods and Services – AONCR | | Additive  Model: (0,2,2)(0,1,1)  With transformation - none  F-value: 1.758  MAVS: 3X5 MA  MAVTC: 9-term MA | | Rejected at level 1.00  Check: M7, M8, M9, M10, M11 | |

Source: Philippine Statistics Authority