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

(2012=100)

January 2012 – October 2020

| **Series Name/**  **Geographic Area Covered** | | **Statistical Models/Options** | | **Summary Measures** |
| --- | --- | --- | --- | --- |
| All Items – PHILS | | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 3.276  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.91  Check: M4, M7, M8, M9, M10, M11 |
| All Items – AONCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 3.555  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.83  Check: M7, M8, M9, M10, M11 |
| Food and Non-alcoholic Beverages – PHILS | | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 13.750  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.47  Check: M4, M10, M11 |
| Food and Non-alcoholic Beverages – NCR | | Multiplicative  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 11.450  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.56  Check: M8, M9, M10, M11 |
| Food and Non-alcoholic Beverages – AONCR | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 11.614  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.50  Check: M10, M11 |
| Alcoholic Beverages and Tobacco – PHILS | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 13.610  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.48  Check: M4, M10, M11 |
| Alcoholic Beverages and Tobacco – NCR | | Multiplicative  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 14.205  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.46  Check: M4 |
| Alcoholic Beverages and Tobacco – AONCR | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 11.884  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.47  Check: M4, M10, M11 |
| Non-Food – PHILS | | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-Value: 2.064  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.76  Check: M7, M8, M10, M11 |
| Non-Food – NCR | | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-Value: 2.823  MAVS: 3x9 MA  MAVTC: 9-term MA | | Accepted at level 0.58  Check: M7 |
| Non-Food – AONCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-Value: 1.338  MAVS: 3x5 MA  MAVTC: 9-term MA | | Accepted at level 0.93  Check: M7, M8, M9, M10, M11 |
|  | | | | |
| Clothing and Footwear - PHILS | | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 4.287  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.82  Check: M7, M8, M9, M10, M11 | |
| Clothing and Footwear - NCR | | Additive  Model: None  With transformation - none  F-value: 2.956  MAVS: 3X9 MA  MAVTC: 9-term MA | | Accepted at level 0.65  Check: M7, M8, M9, M10, M11 | |
| Housing, Water, Electricity, Gas and Other Fuels - PHILS | | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-value: 7.084  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.52  Check: M10, M11 | |
| Housing, Water, Electricity, Gas and Other Fuels - AONCR | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 5.849  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.69  Check: M4, M8, M10, M11 | |
| Furnishing, Household Equipment and Routine Maintenance of the House -PHILS | | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-value: 6.581  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.65  Check: M7, M8, M9, M10, M11 | |
| Furnishing, Household Equipment and Routine Maintenance of the House -NCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation – none  F-value: 4.120  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.95  Check: M7, M8, M9, M10, M11 | |
| Furnishing, Household Equipment and Routine Maintenance of the House -AONCR | | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-value: 4.324  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.70  Check: M7, M8, M9, M10, M11 | |
| Health – PHILS | | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation – none  F-value: 7.171  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.63  Check: M8, M9, M10, M11 | |
| Health –NCR | | Multiplicative  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 11.931  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.68  Check: M4, M8, M9, M10, M11 | |
| Health – AONCR | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 3.425  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.71  Check: M7, M8, M9, M10, M11 | |
| Transport – AONCR | | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 1.366  MAVS: 3X5 MA  MAVTC: 13-term MA | | Rejected at level 1.40  Check: M1, M4, M7, M8, M9, M10, M11 | |
| Recreation and Culture - PHILS | | Multiplicative  Model: (0,1,2)(0,1,1)  With transformation – none  F-value: 4.054  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.89  Check: M4, M7, M8, M9, M10, M11 | |
| Recreation and Culture - NCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation – none  F-value: 6.900  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.79  Check: M7, M8, M9, M10, M11 | |
| Recreation and Culture - AONCR | | Additive  Model: (0,1,2)(0,1,1)  With transformation – none  F-value: 3.726  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.84  Check: M7, M8, M9, M10, M11 | |
| Education – PHILS | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 13.330  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.53  Check: M4, M10, M11 | |
| Education –NCR | | Multiplicative  Model: None  With transformation - none  F-value: 56.848  MAVS: 3X3 MA  MAVTC: 9-term MA | | Accepted at level 0.31  Check: M4 | |
| Education - AONCR | | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 8.103  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: (2,1,2)(0,1,1)  With transformation - none  F-value: 2.087  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.83  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: 3.685  MAVS: 3X5 MA  MAVTC: 9-term MA | | Accepted at level 0.69  Check: M4, M7, M8, M10, M11 | |
| Restaurant and Miscellaneous  Goods and Services – AONCR | | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 0.995  MAVS: 3X5 MA  MAVTC: 9-term MA | | Rejected at level 1.16  Check: M7, M8, M9, M10, M11 | |

Source: Philippine Statistics Authority