

Table 4. Summary of Statistical Models Used in the Generation of
Seasonally Adjusted CPI
(2012=100)

January 2012 – January 2021

Series Name/ Geographic Area Covered	Statistical Models/Options	Summary Measures
All Items – PHILS	Multiplicative Model: (2,1,0)(0,1,1) With transformation - none F-value: 2.545 MAVS: 3x5 MA MAVTC: 9-term MA	Accepted at level 0.98 Check: M7, M8, M9, M10, M11
All Items – NCR	Additive Model: (0,2,2)(0,1,1) With transformation - none F-value: 0.900 MAVS: 3x5 MA MAVTC: 9-term MA	Rejected at level 1.19 Check: M7, M8, M9, M10, M11
All Items – AONCR	Multiplicative Model: (0,1,2)(0,1,1) With transformation - none F-value: 2.759 MAVS: 3x5 MA MAVTC: 9-term MA	Accepted at level 0.96 Check: M4, M7, M8, M9, M10, M11
Food and Non- alcoholic Beverages – PHILS	Multiplicative Model: (0,1,2)(0,1,1) With transformation - none F-value: 7.025 MAVS: 3x5 MA MAVTC: 9-term MA	Accepted at level 0.69 Check: M8, M9, M10, M11
Food and Non- alcoholic Beverages – NCR	Multiplicative Model: (2,1,0)(0,1,1) With transformation - none F-value: 7.672 MAVS: 3x3 MA MAVTC: 9-term MA	Accepted at level 0.82 Check: M8, M9, M10, M11

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Food and Non- alcoholic Beverages – AONCR	Multiplicative Model: (2,1,2)(0,1,1) With transformation - none F-value: 6.612 MAVS: 3x5 MA MAVTC: 9-term MA	Accepted at level 0.71 Check: M7, M8, M9, M10, M11
Alcoholic Beverages and Tobacco – PHILS	Additive Model: (2,1,0)(0,1,1) With transformation - none F-value: 11.406 MAVS: 3x5 MA MAVTC: 9-term MA	Accepted at level 0.47 Check: M4, M8, M10, M11
Alcoholic Beverages and Tobacco – NCR	Multiplicative Model: (2,1,0)(0,1,1) With transformation - none F-value: 13.619 MAVS: 3x5 MA MAVTC: 9-term MA	Accepted at level 0.47 Check: M4, M8, M10, M11
Alcoholic Beverages and Tobacco – AONCR	Additive Model: (0,1,2)(0,1,1) With transformation - none F-value: 10.799 MAVS: 3x5 MA MAVTC: 9-term MA	Accepted at level 0.49 Check: M4, M8, M10, M11
Non-Food – PHILS	Additive Model: (2,1,2)(0,1,1) With transformation - none F-Value: 2.085 MAVS: 3x5 MA MAVTC: 9-term MA	Accepted at level 0.78 Check: M7, M8, M10, M11
Non-Food – NCR	Additive Model: (2,1,2)(0,1,1) With transformation - none F-Value: 3.029 MAVS: 3x9 MA MAVTC: 9-term MA	Accepted at level 0.57 Check: M6, M7

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Non-Food – AONCR	Additive Model: (2,1,2)(0,1,1) With transformation - none F-Value: 1.258 MAVS: 3x5 MA MAVTC: 9-term MA	Rejected at level 1.02 Check: M7, M8, M9, M10, M11
Clothing and Footwear - PHILS	Multiplicative Model: (2,1,0)(0,1,1) With transformation - none F-value: 4.584 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.77 Check: M7, M8, M9, M10, M11
Clothing and Footwear - NCR	Additive Model: None With transformation - none F-value: 2.650 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.81 Check: M7, M8, M9, M10, M11
Clothing and Footwear - AONCR	Additive Model: (0,1,1)(0,1,1) With transformation - none F-value: 3.543 MAVS: 3X3 MA MAVTC: 9-term MA	Accepted at level 0.88 Check: M7, M8, M9, M10, M11
Housing, Water, Electricity, Gas and Other Fuels - PHILS	Additive Model: (2,1,2)(0,1,1) With transformation - none F-value: 7.705 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.53 Check: M4
Housing, Water, Electricity, Gas and Other Fuels - NCR	Additive Model: (0,1,2)(0,1,1) With transformation - none F-value: 6.051 MAVS: 3X9 MA MAVTC: 13-term MA	Accepted at level 0.77 Check: M1, M6, M7

Series Name/ Geographic Area Covered	Statistical Models/Options	Summary Measures
Housing, Water, Electricity, Gas and Other Fuels - AONCR	Additive Model: (2,1,2)(0,1,1) With transformation - none F-value: 6.479 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: (2,1,0)(0,1,1) With transformation - none F-value: 7.767 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.61 Check: M7, M8, M9, M10, M11
Furnishing, Household Equipment and Routine Maintenance of the House -NCR	Additive Model: (2,1,0)(0,1,1) With transformation – none F-value: 5.029 MAVS: 3X3 MA MAVTC: 9-term MA	Rejected at level 1.01 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: 4.345 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.72 Check: M7, M8, M9, M10, M11
Health – PHILS	Multiplicative Model: (2,1,0)(0,1,1) With transformation – none F-value: 7.429 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.60 Check: M8, M9, M10, M11

Series Name/ Geographic Area Covered	Statistical Models/Options	Summary Measures
Health –NCR	Multiplicative Model: (0,1,2)(0,1,1) With transformation - none F-value: 12.711 MAVS: 3X3 MA MAVTC: 9-term MA	Accepted at level 0.65 Check: M4, M8, M9, M10, M11
Health – AONCR	Additive Model: (2,1,0)(0,1,1) With transformation - none F-value: 3.497 MAVS: 3X5 MA MAVTC: 9-term MA	
Transport – NCR	Multiplicative Model: (0,1,2)(0,1,1) With transformation - none F-value: 2.441 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.97 Check: M4, M7, M8, M10, M11
Recreation and Culture - PHILS	Additive Model: (0,1,1)(0,1,1) With transformation – none F-value: 4.549 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: (0,1,1)(0,1,1) With transformation – none F-value: 7.640 MAVS: 3X3 MA MAVTC: 9-term MA	Accepted at level 0.71 Check: M7, M8, M9, M10, M11
Recreation and Culture - AONCR	Additive Model: (0,1,2)(0,1,1) With transformation –none F-value: 3.719 MAVS: 3X3 MA MAVTC: 9-term MA	Accepted at level 0.85 Check: M7, M8, M9, M10

Series Name/ Geographic Area Covered	Statistical Models/Options	Summary Measures
Education – PHILS	Additive Model: (2,1,2)(0,1,1) With transformation - none F-value: 13.727 MAVS: 3X3 MA MAVTC: 9-term MA	Accepted at level 0.56 Check: M4, M10, M11
Education –NCR	Multiplicative Model: None With transformation - none F-value: 55.679 MAVS: 3X3 MA MAVTC: 9-term MA	Accepted at level 0.33 Check: M4
Education - AONCR	Additive Model: (2,1,2)(0,1,1) With transformation - none F-value: 8.348 MAVS: 3X3 MA MAVTC: 9-term MA	Accepted at level 0.68 Check: M4, M7, M8, M10, M11
Restaurant and Miscellaneous Goods and Services - PHILS	Additive Model: (2,1,0)(0,1,1) With transformation - none F-value: 2.871 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.69 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: 3.641 MAVS: 3X5 MA MAVTC: 9-term MA	Accepted at level 0.70 Check: M4, M7, M8, M10, M11
Restaurant and Miscellaneous Goods and Services – AONCR	Additive Model: (0,1,2)(0,1,1) With transformation - none F-value: 1.675 MAVS: 3X5 MA MAVTC: 9-term MA	Rejected at level 1.05 Check: M7, M8, M9, M10, M11

Source: Philippine Statistics Authority