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

(2012=100)

January 2012 – May 2020

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| 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: 3.612  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.87  Check: M4, M7, M8, M9, M10, M11 |
| All Items – AONCR | Additive  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 4.023  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.78  Check: M7, M8, M9, M10, M11 |
| Food and Non-alcoholic Beverages – PHILS | Multiplicative  Model: (0,1,2)(0,1,1)  With transformation - none  F-value: 20.507  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.39 |
| Food and Non-alcoholic Beverages – NCR | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 14.673  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.46  Check: M8, M10, M11 |
| Food and Non-alcoholic Beverages – AONCR | Additive  Model: (0,2,2)(0,1,1)  With transformation - none  F-value: 17.492  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.42  Check: M6 |
| Alcoholic Beverages and Tobacco – PHILS | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 13.264  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.48  Check: M4 |
| Alcoholic Beverages and Tobacco – NCR | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 14.453  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.47  Check: M4 |
| Alcoholic Beverages and Tobacco – AONCR | Additive  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 12.140  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.47  Check: M4 |
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Table 4. Summary of Statistical Models Used in the Generation of Seasonally Adjusted CPI – (continued)

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| Series Name/  Geographic Area Covered | Statistical Models/Options | Summary Measures |
| Non-Food – PHILS | Additive  Model: (0,1,1)(0,1,1)  With transformation - none  F-Value: 3.004  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.66  Check: M7, M8, M9, M10, M11 |
| Non-Food – NCR | Additive  Model: (0,1,1)(0,1,1)  With transformation - none  F-Value: 3.300  MAVS: 3x9 MA  MAVTC: 9-term MA | Accepted at level 0.56  Check: M7 |
| Non-Food – AONCR | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-Value: 2.103  MAVS: 3x5 MA  MAVTC: 9-term MA | Accepted at level 0.83  Check: M4, M7, M8, M9, M10, M11 |
| Clothing and Footwear - PHILS | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 3.824  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.91  Check: M7, M8, M9, M10, M11 |
| Clothing and Footwear - NCR | Additive  Model: None  With transformation - none  F-value: 2.843  MAVS: 3X9 MA  MAVTC: 9-term MA | Accepted at level 0.68  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: 7.146  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.50  Check: M10, M11 |
| Housing, Water, Electricity, Gas and Other Fuels - AONCR | Additive  Model: (0,1,1)(0,1,1)  With transformation – none  F-value: 5.642  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.71  Check: M4, M8, M10, M11 |
| Furnishing, Household Equipment and Routine Maintenance of the House -PHILS | Additive  Model: (0,2,2)(0,1,1)  With transformation – none  F-value: 6.439  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.64  Check: M7, M8, M9, M10, M11 |

Table 4. Summary of Statistical Models Used in the Generation of Seasonally Adjusted CPI – (continued)

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| Series Name/  Geographic Area Covered | Statistical Models/Options | Summary Measures |
| Furnishing, Household Equipment and Routine Maintenance of the House -NCR | Additive  Model: (2,1,2)(0,1,1)  With transformation – none  F-value: 3.952  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.91  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: 3.507  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.78  Check: M7, M8, M9, M10, M11 |
| Health – PHILS | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation – none  F-value: 6.473  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.61  Check: M8, M9, M10, M11 |
| Health –NCR | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 10.223  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.62  Check: M4, M8, M9, M10, M11 |
| Health – AONCR | Additive  Model: (0,1,1)(0,1,1)  With transformation - none  F-value: 3.078  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at level 0.70  Check: M7, M8, M9, M10, M11 |
| Transport – AONCR | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 0.969  MAVS: 3X5 MA  MAVTC: 13-term MA | Rejected at level 1.47  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: 5.145  MAVS: 3X3 MA  MAVTC: 9-term MA | Accepted at level 0.83  Check: M7, M8, M9, M10, M11 |
| Recreation and Culture - NCR | Additive  Model: (0,1,2)(0,1,1)  With transformation – none  F-value: 7.177  MAVS: 3X3 MA  MAVTC: 9-term MA | Accepted at level 0.79  Check: M7, M8, M9, M10, M11 |

Table 4. Summary of Statistical Models Used in the Generation of Seasonally Adjusted CPI – (concluded)

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| Series Name/  Geographic Area Covered | Statistical Models/Options | Summary Measures |
| Recreation and Culture - AONCR | Additive  Model: (2,1,2)(0,1,1)  With transformation – none  F-value: 5.023  MAVS: 3X3 MA  MAVTC: 9-term MA | Accepted at level 0.82  Check: M7, M8, M9, M10, M11 |
| Education – PHILS | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 17.071  MAVS: 3X3 MA  MAVTC: 9-term MA | Accepted at the level 0.43  Check: M4, M10, M11 |
| Education –NCR | Multiplicative  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 82.220  MAVS: 3X3 MA  MAVTC: 9-term MA | Accepted at the level 0.32  Check: M4 |
| Education – AONCR | Additive  Model: (0,1,2)(0,1,1)  With transformation - none  F-value: 10.085  MAVS: 3X3 MA  MAVTC: 9-term MA | Accepted at the level 0.56  Check: M4, M10, M11 |
| Restaurant and Miscellaneous Goods and Services - PHILS | Additive  Model: (2,1,2)(0,1,1)  With transformation - none  F-value: 2.226  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at the level 0.76  Check: M7, M8, M9, M10, M11 |
| Restaurant and Miscellaneous  Goods and Services – NCR | Multiplicative  Model: (2,1,0)(0,1,1)  With transformation - none  F-value: 3.574  MAVS: 3X5 MA  MAVTC: 9-term MA | Accepted at the level 0.68  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: 0.890  MAVS: 3X5 MA  MAVTC: 9-term MA | Rejected at the level 1.18  Check: M7, M8, M9, M10, M11 |

Source: Philippine Statistics Authority