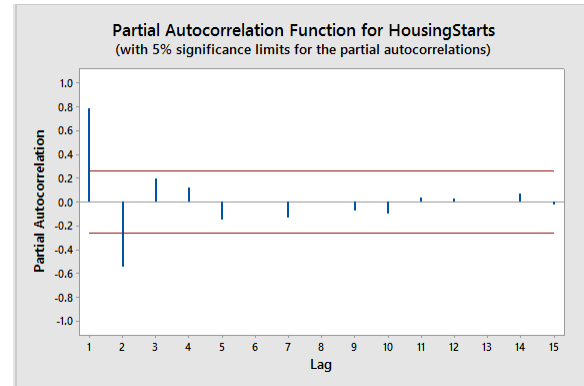
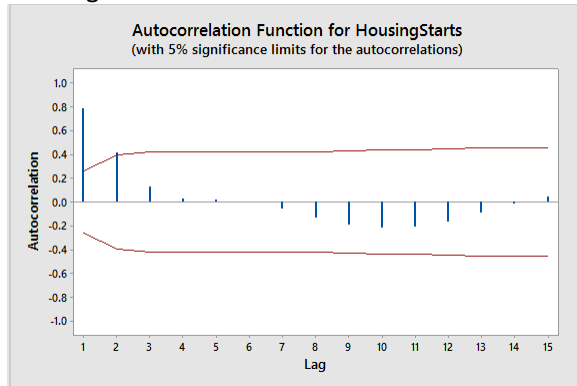


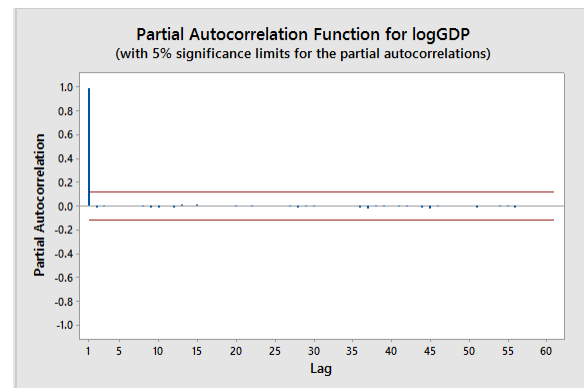
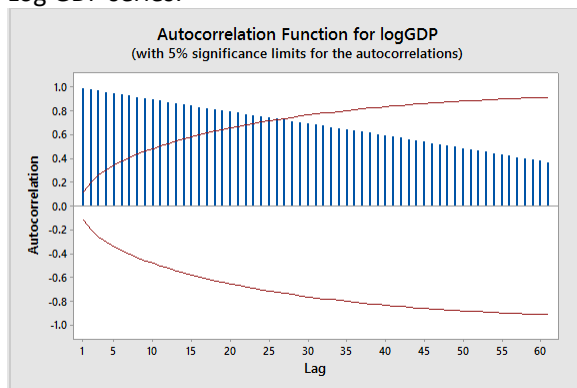
2.

Housing Starts series:



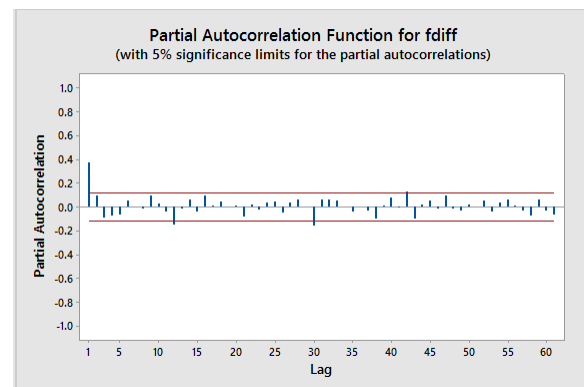
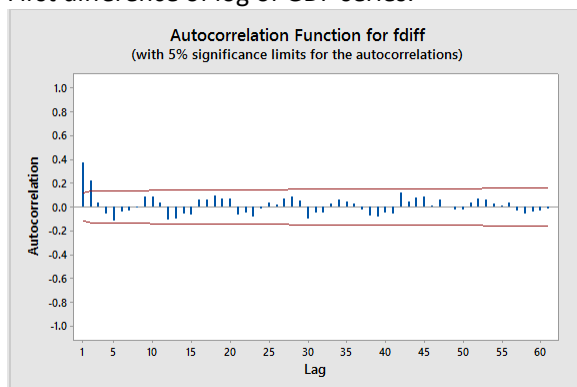
It looks like a MA(1) or AR(2) model

Log GDP series:



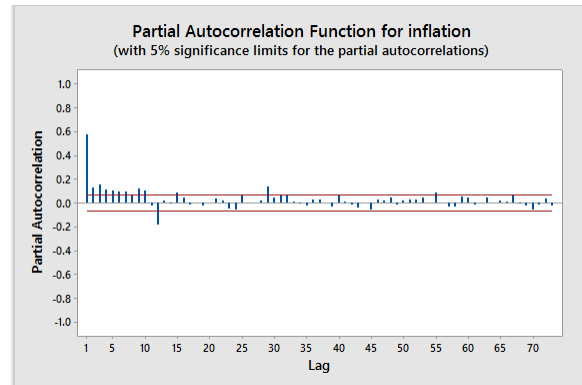
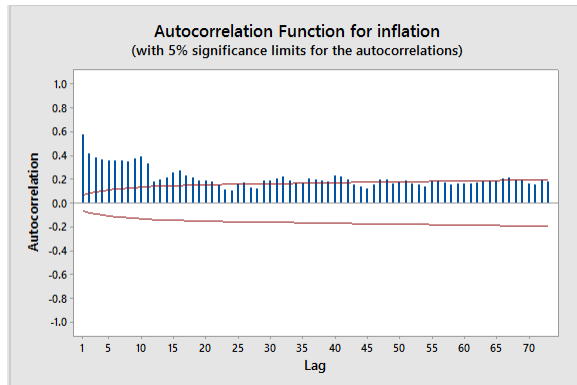
It looks like a MA(25) or AR(1) model.

First difference of log of GDP series:



It looks like both models are dying down and thus it can be any MA(2) or AR(11) model. This can lead to an ARMA model by definition.

Inflation:



It looks like a AR(12) model. At ACF plot is dyeing down and we cannot predict MA(p) value.

5. C.

ARIMA Model: logGDP

Estimates at Each Iteration

| Iteration | SSE | Parameters | | | |
|-----------|---------|------------|-------|-------|--|
| 0 | 1.83272 | 0.100 | 0.100 | 0.086 | |
| 1 | 0.11182 | 0.250 | 0.055 | 0.023 | |
| 2 | 0.02357 | 0.326 | 0.070 | 0.007 | |
| 3 | 0.02133 | 0.337 | 0.089 | 0.005 | |
| 4 | 0.02131 | 0.339 | 0.093 | 0.004 | |
| 5 | 0.02131 | 0.339 | 0.093 | 0.004 | |
| 6 | 0.02131 | 0.339 | 0.093 | 0.004 | |

Relative change in each estimate less than 0.001

Final Estimates of Parameters

| Type | Coef | SE Coef | T-Value | P-Value |
|----------|----------|----------|---------|---------|
| AR 1 | 0.3387 | 0.0596 | 5.68 | 0.000 |
| AR 2 | 0.0935 | 0.0596 | 1.57 | 0.118 |
| Constant | 0.004379 | 0.000520 | 8.42 | 0.000 |

Differencing: 1 regular difference

Number of observations: Original series 283, after differencing 282

Residual Sums of Squares

| DF | SS | MS |
|-----|-----------|-----------|
| 279 | 0.0212927 | 0.0000763 |

Back forecasts excluded

Modified Box-Pierce (Ljung-Box) Chi-Square Statistic

| Lag | 12 | 24 | 36 | 48 |
|------------|-------|-------|-------|-------|
| Chi-Square | 15.69 | 29.73 | 43.87 | 62.25 |
| DF | 9 | 21 | 33 | 45 |
| P-Value | 0.074 | 0.098 | 0.098 | 0.045 |

Forecasts from period 282

| Period | Forecast | 95% Limits | | Actual |
|--------|----------|------------|---------|---------|
| | | Lower | Upper | |
| 283 | 9.75001 | 9.73289 | 9.76714 | 9.75056 |