Orlando-Kissimmee-Sanford, FL (MSA) for Average Weekly Earnings and Total Private Employees in Non-Seasonally Adjusted and by Monthly Project

Marie Hasegawa

Florida Polytechnic University

April 2021

II. Table of Contents

1. Introduction

The project will forecast the March non-seasonally adjusted estimate for Orlando-Kissimmee-Sanford, FL; the forecast will use weekly earnings and the total employment as the focused variables and the rest as predictors. This project is meant to do one-step ahead for any metropolitan area in Florida. The methods used to do this project are explanatory data analysis, AC, PAC, regress, best model selection from GSREG and rolling window technique, and forecasting.

2. Exploratory Data Analysis for Private Employment and Average Weekly Earnings

```
. summarize date lnemp1000 lnavg_WeekDolla lnavg_HourDolla lnavg_WeekHour

    Variable |     Obs       Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
        date |     375        547    108.3974        360        734
   lnemp1000 |     374   6.710787    .2483034   6.204962   7.108326
 lnavg_Week~a |     170   6.682291    .0763219   6.529039   6.861984
 lnavg_Hour~a |     170   3.112208    .0894843   2.961658   3.312366
 lnavg_Week~r |     170   3.570082    .0249963   3.496508   3.634951
```

2.1 Summarization of All Log Variables

The "date" variable is used to set time frame constraints to create forecasts. The variable, "lnemp1000", is the log of private employment in thousands. The variable, "lnavg_WeekHour", is the log of average weekly hours. The variable, "lnavg_HourDolla", is the log average of hourly earnings. The variable, "lnavg_WeekDolla", is the log of average of weekly earnings.

Overall, the variables log of Private employment and "date" have more observations while log of average hourly earnings, log of average weekly earnings, and log of weekly hours which each have 170 observations.

```
reg d.lnavg_WeekDolla l(1,2,3,6,12,24)d.lnavg_WeekDolla l(1,2,3)d.lnemp1000 l(1,2,3)d.
lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour
```

Akaike's information criterion and Bayesian information criterion

Model	N	ll(null)	ll(model)	df	AIC	BIC
.	166	443.2624	468.2102	16	-904.4205	-854.6287

Note: BIC uses N = number of observations. See **[R] BIC note**.

2.2 Akaike's Info Criterion and Bayesian Information of Regression of lnemp1000 in Relation to the other Log Variables

The Akaike's Info Criterion and Bayesian Information of the regression for "lnemp1000" in relation with the other log variables (lnavg_HourDolla, lnavg_WeekHour, and lnavg_WeekDolla) has an AIC and BIC of -904.4206 and -854.6287. Since AIC and BIC has such low values, then this will lead to a better fit for the model.

Akaike's information criterion and Bayesian information criterion

Model	N	ll(null)	ll(model)	df	AIC	BIC
.	145	395.9416	413.213	16	-794.4261	-746.7983

Note: BIC uses N = number of observations. See **[R] BIC note**.

2.3 Akaike's Info Criterion and Bayesian Information Regression of lnavg_WeekDolla in Relation to the other Log Variables

The Akaike's Info Criterion and Bayesian Information of the regression for "lnavg_WeekDolla" in relation with the other log variables (lnavg_HourDolla, lnemp1000, and lnavg_WeekHour) has an AIC and BIC of -794.426 and -746.7983. Since AIC and BIC have such low values, then it leads to a better fit for the model.
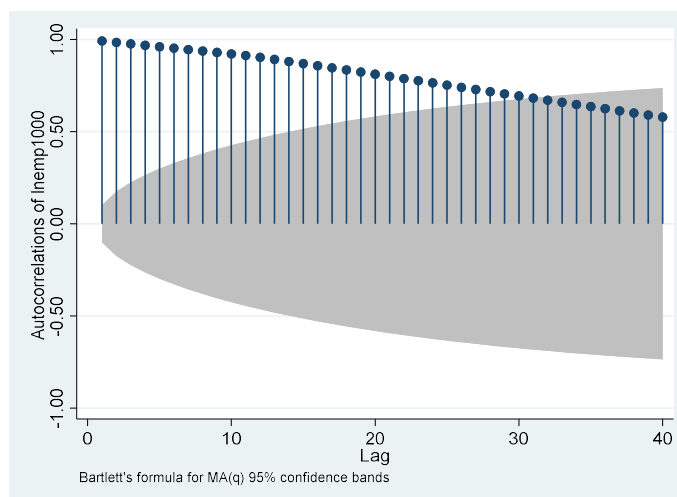
2.4 Autocorrelation of log of Private Employment
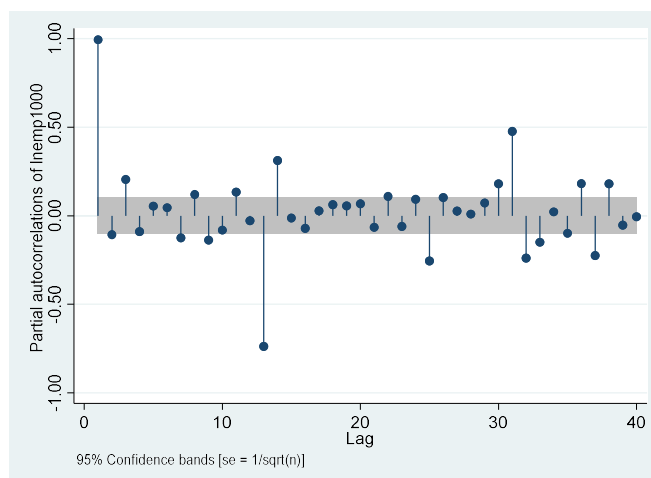
2.5 Partial Autocorrelation of log of Private Employment

The auto correlogram for log of Private employment shown above illustrates that the autocorrelations undergo negative influence with every increase of lag. This shows that the regression of the autocorrelation of log of Private jobs decreases in response to the lag increase. However, the partial auto correlogram between log of Private jobs and lag react differently to the auto correlogram. The partial auto correlogram shows that the partial correlations stay constant with an overall partial auto correlation of 0.
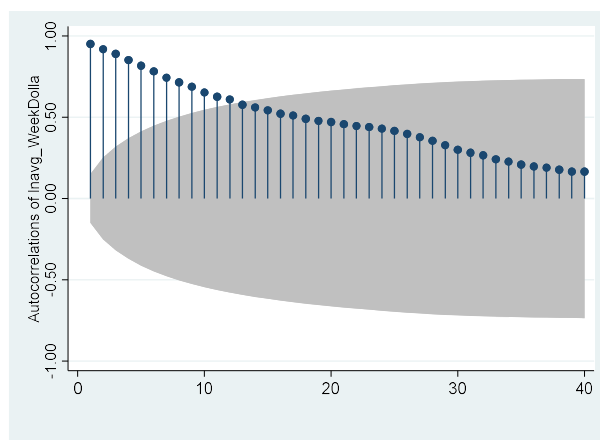
2.6 Autocorrelation of log of Average Weekly Earnings
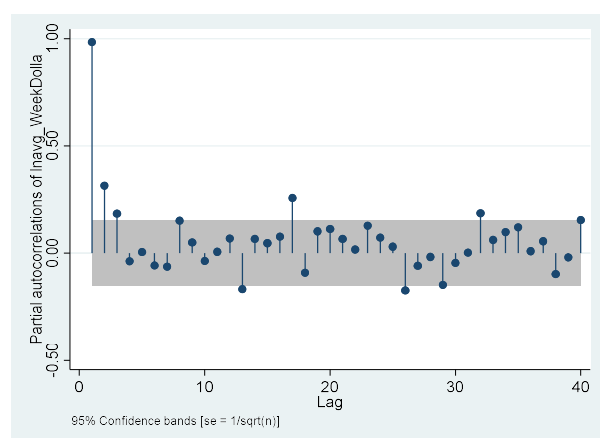
2.7 Partial Autocorrelation of log of Average Weekly Earnings

The auto correlogram shows that the autocorrelations of the log of average weekly earnings undergo a drastic negative influence with every increase of lag. Yet, the partial auto correlogram between the average weekly earnings and the lag react differently to the auto correlogram. The partial auto correlogram shows that the partial autocorrelations are constant with an overall partial auto correlation of 0.
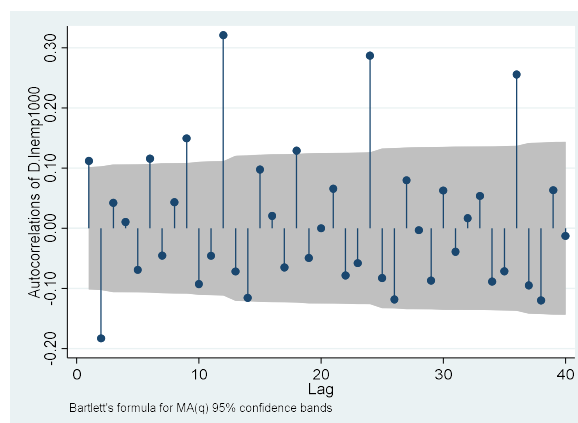
2.8 Autocorrelation of Differences of log of Private Employment
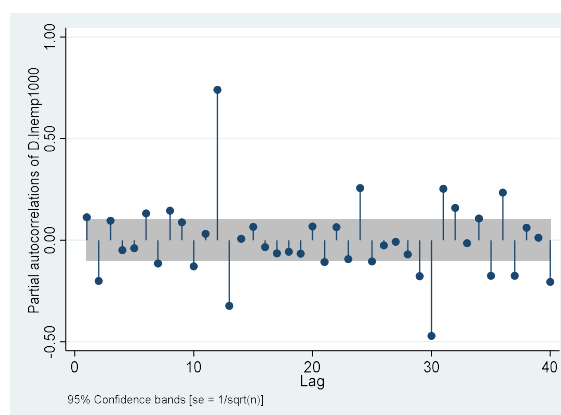
2.9 Partial Autocorrelation of Differences of log of Private Employment

The auto correlogram between the differences of log of differences of total Private employment and the lag have a spastic relation on autocorrelations 0 but have a wide range from ~-0.1 and ~0.1. The partial auto correlogram shows that the partial autocorrelations are more tightly ranged from partial correlation between -0.1 and 0.1 with an overall partial auto correlation of 0.
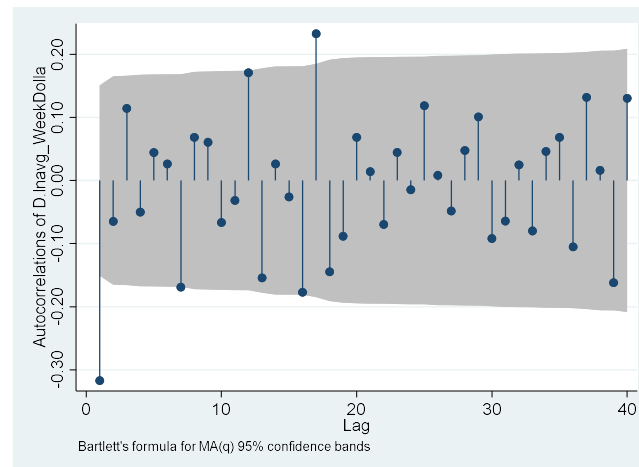
2.10   Autocorrelation of Differences of log of Average Weekly Earnings
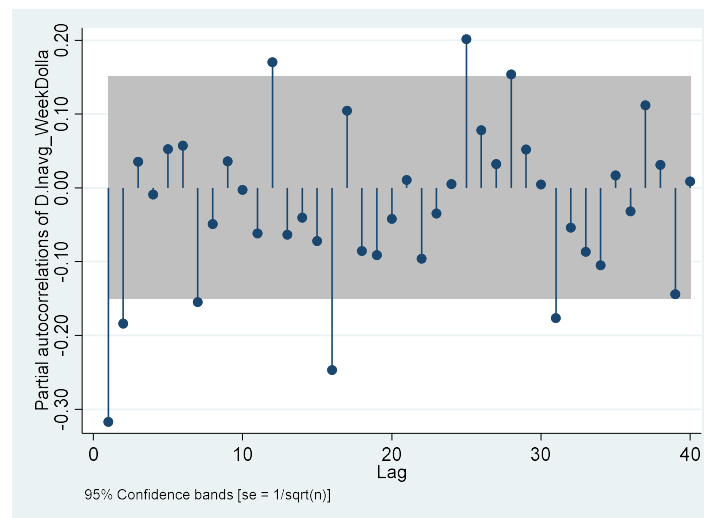
2.11   Partial Autocorrelation of Differences of log of Average Weekly Earnings

The auto correlogram between the differences of log of average weekly earnings and the lag have a spastic relation on autocorrelations 0 but have a wide range from ~-0.15 and ~0.15. The partial auto correlogram shows that the partial autocorrelations are tightly ranged from partial correlation between -0.15 and 0.15 with an overall partial auto correlation of 0.
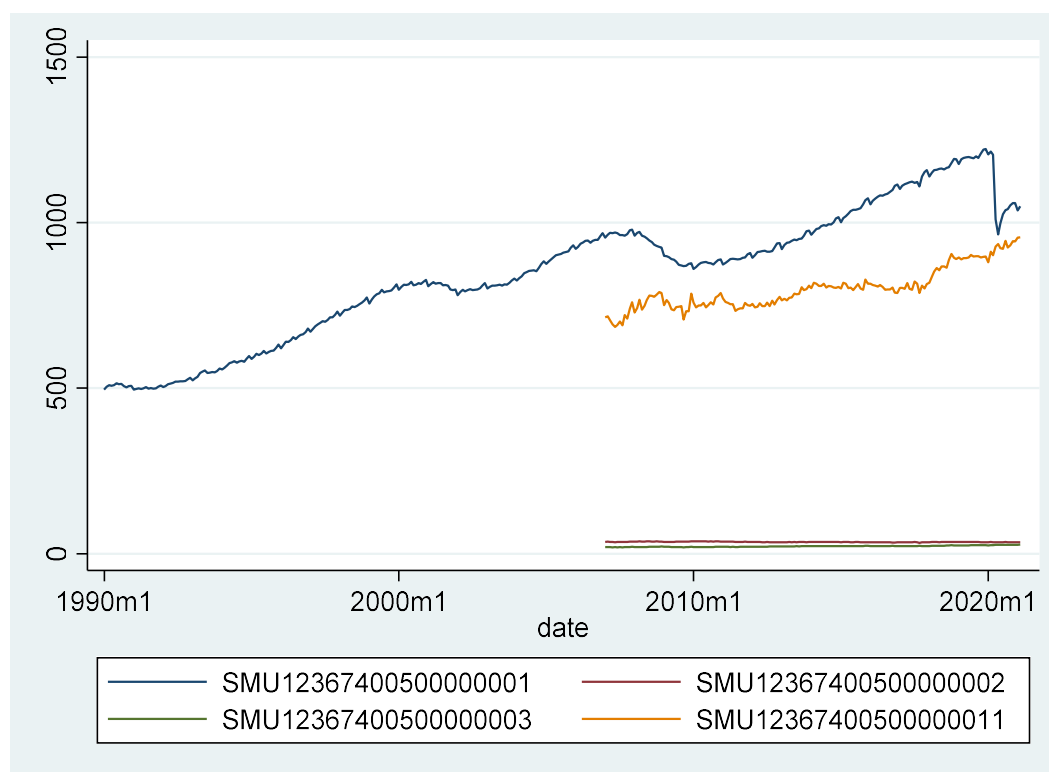
2.12   Time Series Line Plots of Total Private Employees (Blue), Average Weekly Hours

(Orange), Average Weekly Earnings (Green), and Average Hourly Earnings (Red)

The time series plot shown above illustrates total private employment and average weekly hours having positive relationship as time increases. However, total private employment dropped at 2020m1 (January 2020), which suggest that the COVID-19 quarantine and business closures influenced total private employment. Both average weekly earnings and average hourly earnings do not react as time increase and remain constant. This is explained by the fact the minimum wage has remained constant for a course of years, an only on certain incidents cause the wage to increase dramatically like if the government changed the minimum wage from $8 to $16 per hour.
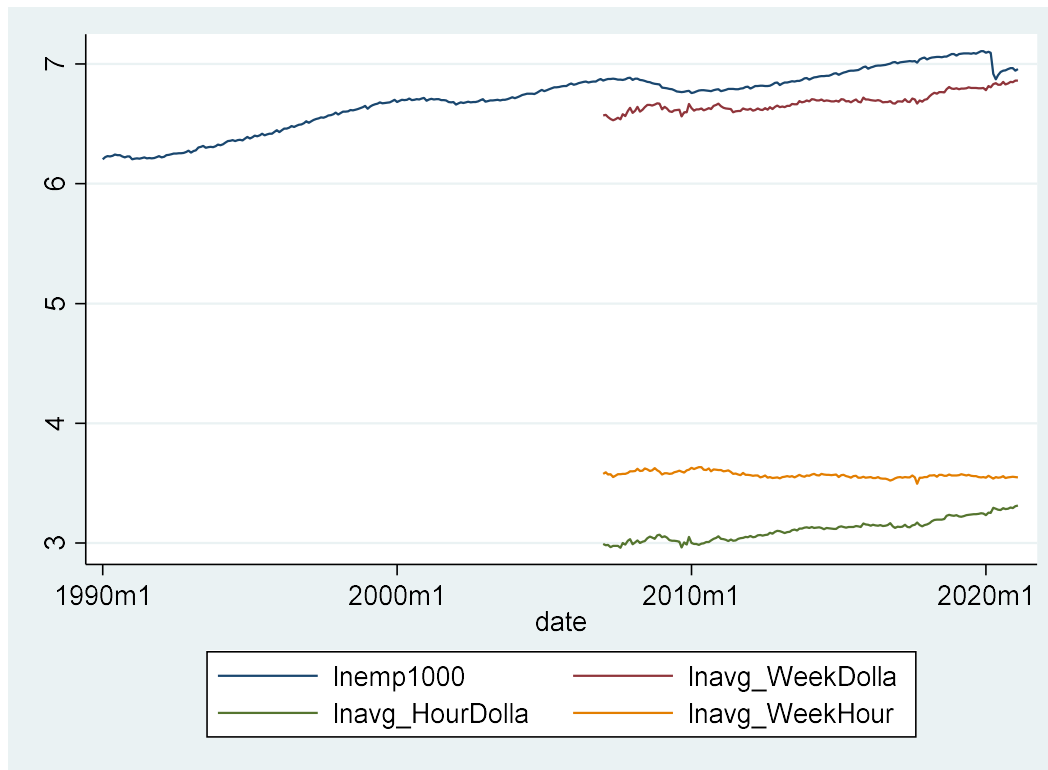
2.13   Time Series Line Plots of Log of Total Private Employees, Log of Average Weekly Hours,

Log of Average Weekly Earnings, and Log of Average Hourly Earnings

The time series plot shown above illustrates the log of total private employment and log of

average weekly hours having positive relationship as time increases but have a smaller slope than

the previous time series plot. However, log of total private employment dropped at 2020m1

(January 2021), which suggest that the COVID-19 quarantine and business closures influenced

log of total private employment. Both average weekly earnings and average hourly earnings do

not react as much as time increase and remain somewhat constant. This is explained by the fact

the minimum wage has remained constant for a course of years, an only on certain incidents

cause the wage to increase dramatically like if the government changed the minimum wage from

$8 to $16 dollars per hour. The reason the normal time series and the log time series are so

different from each other because the log reduces the variance of every variable.

3. Predict Forecast for Private Employment in Florida for March 2021

3.1. Best Model Selection from GSREG and Rolling Window Technique

```
.
. scalar list
RWmaxobs180 =        154
RWminobs180 =        128
 RWrmse180 =  .00419142
RWmaxobs168 =        154
RWminobs168 =        128
 RWrmse168 =  .00419142
RWmaxobs156 =        154
RWminobs156 =        128
 RWrmse156 =  .00419142
RWmaxobs144 =        144
RWminobs144 =        128
 RWrmse144 =   .0041952
RWmaxobs132 =        132
RWminobs132 =        128
 RWrmse132 =  .00413937
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00455979
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .00432618
RWmaxobs96 =         96
RWminobs96 =         96
 RWrmse96 =   .00437832
RWmaxobs84 =         84
RWminobs84 =         84
 RWrmse84 =   .00476978
RWmaxobs72 =         72
RWminobs72 =         72
 RWrmse72 =   .00494022
RWmaxobs60 =         60
RWminobs60 =         60
 RWrmse60 =   .00505821
RWmaxobs48 =         48
RWminobs48 =         48
 RWrmse48 =   .00628645
RWmaxobs36 =         36
RWminobs36 =         36
 RWrmse36 =   .00638181
```

```
. scalar list
RWmaxobs180 =        156
RWminobs180 =        130
 RWrmse180 =  .00373137
RWmaxobs168 =        156
RWminobs168 =        130
 RWrmse168 =  .00373137
RWmaxobs156 =        156
RWminobs156 =        130
 RWrmse156 =  .00373137
RWmaxobs144 =        144
RWminobs144 =        130
 RWrmse144 =  .00374201
RWmaxobs132 =        132
RWminobs132 =        130
 RWrmse132 =  .00377204
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00387121
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .00387392
RWmaxobs96 =         96
RWminobs96 =         96
 RWrmse96 =   .00373074
RWmaxobs84 =         84
RWminobs84 =         84
 RWrmse84 =   .00373807
RWmaxobs72 =         72
RWminobs72 =         72
 RWrmse72 =   .00375414
RWmaxobs60 =         60
RWminobs60 =         60
 RWrmse60 =   .00376525
RWmaxobs48 =         48
RWminobs48 =         48
 RWrmse48 =   .00390517
RWmaxobs36 =         36
RWminobs36 =         36
 RWrmse36 =   .00390738
```

```
. scalar list
RWmaxobs180 =        155
RWminobs180 =        129
 RWrmse180 =  .00379294
RWmaxobs168 =        155
RWminobs168 =        129
 RWrmse168 =  .00379294
RWmaxobs156 =        155
RWminobs156 =        129
 RWrmse156 =  .00379294
RWmaxobs144 =        144
RWminobs144 =        129
 RWrmse144 =  .00379702
RWmaxobs132 =        132
RWminobs132 =        129
 RWrmse132 =  .00380873
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00403659
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .00405407
RWmaxobs96 =         96
RWminobs96 =         96
 RWrmse96 =   .00397254
RWmaxobs84 =         84
RWminobs84 =         84
 RWrmse84 =   .00394137
RWmaxobs72 =         72
RWminobs72 =         72
 RWrmse72 =   .00393184
RWmaxobs60 =         60
RWminobs60 =         60
 RWrmse60 =   .00389887
RWmaxobs48 =         48
RWminobs48 =         48
 RWrmse48 =   .00423858
RWmaxobs36 =         36
RWminobs36 =         36
 RWrmse36 =   .00423556
```

```
. scalar list
RWmaxobs180 =        156
RWminobs180 =        130
 RWrmse180 =  .00374622
RWmaxobs168 =        156
RWminobs168 =        130
 RWrmse168 =  .00374622
RWmaxobs156 =        156
RWminobs156 =        130
 RWrmse156 =  .00374622
RWmaxobs144 =        144
RWminobs144 =        130
 RWrmse144 =  .00378429
RWmaxobs132 =        132
RWminobs132 =        130
 RWrmse132 =  .00383294
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00393096
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .00393316
RWmaxobs96 =         96
RWminobs96 =         96
 RWrmse96 =   .00380907
RWmaxobs84 =         84
RWminobs84 =         84
 RWrmse84 =   .00384687
RWmaxobs72 =         72
RWminobs72 =         72
 RWrmse72 =   .00391817
RWmaxobs60 =         60
RWminobs60 =         60
 RWrmse60 =   .00388777
RWmaxobs48 =         48
RWminobs48 =         48
 RWrmse48 =   .00398452
RWmaxobs36 =         36
RWminobs36 =         36
 RWrmse36 =   .00414303
```

```
. scalar list
RWmaxobs180 =        155
RWminobs180 =        129
 RWrmse180 =  .00383636
RWmaxobs168 =        155
RWminobs168 =        129
 RWrmse168 =  .00383636
RWmaxobs156 =        155
RWminobs156 =        129
 RWrmse156 =  .00383636
RWmaxobs144 =        144
RWminobs144 =        129
 RWrmse144 =  .00384729
RWmaxobs132 =        132
RWminobs132 =        129
 RWrmse132 =  .00387908
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00410311
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .00415109
RWmaxobs96 =         96
RWminobs96 =         96
 RWrmse96 =   .00404472
RWmaxobs84 =         84
RWminobs84 =         84
 RWrmse84 =   .00405905
RWmaxobs72 =         72
RWminobs72 =         72
 RWrmse72 =    .0040693
RWmaxobs60 =         60
RWminobs60 =         60
 RWrmse60 =   .00401537
RWmaxobs48 =         48
RWminobs48 =         48
 RWrmse48 =   .00424133
RWmaxobs36 =         36
RWminobs36 =         36
 RWrmse36 =    .0043153
```

3.1.1 Best Model Selection for Total Private Employees from GSREG Ranks Standard, 1, 2, 5, and 13

These 5 models were chosen based on the GSREG technique of checking the best GSREG rank in the data editor by their AIC, BIC, and R-squared values. The best model selection was done with the rolling window technique and chosen by the smallest RMSE from every

rolling window result. Overall, the best GSREG rank model is rank 2 with RMSE value of .00249426. GSREG rank 2 will be furthered used for forecast in the next section.

3.2. Predict March One Time Forecasts

```
. scalar list
RWmaxobs96 =         96
RWminobs96 =         96
  RWrmse96 =  .06253767
```

3.2.1   Rolling window program for GSREG Rank 2 for dlnemp1000 after 96 months for Minimum Observations, Maximum Observations, and RWRMSE

For the new forecast, rolling window technique was done again for GSREG 2 for differences of log of employment after 96 months to generate new variables: res (residuals), errsq (squared residual), Rwrmse (overall RMSE), RWminobs96 (minimum observations for RMSE), and RWmaxobs96 (maximum observations for RMSE). These new variables will be used for empirical forecasts and normal forecasts.
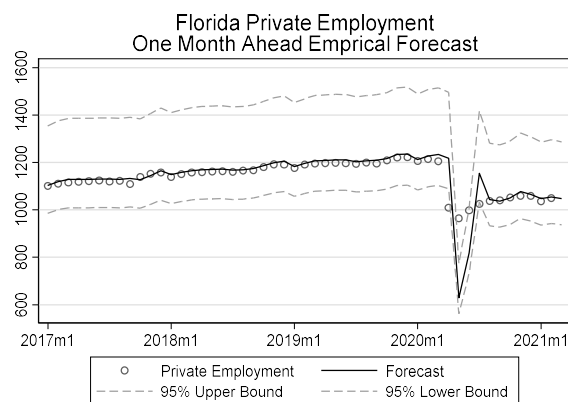

```
. list epy eub elb if date==tm(2021m3)

              epy         eub         elb
375.     1047.894    1287.049    936.7554
```

3.2.2   Empirical Forecast for Florida Private Employment to predict 2021m3

As you can above, the empirical forecast of private employment has March 2021 have the predictive forecast of 1047.894, while the upper bound is 1287.049 which is a difference of 239.155 and the lower bound is 936.7554 which is a difference of 111.1386. The difference between the forecast and upper bound and the difference between the forecast and lower bounds should be similar, but the upper bound has a larger difference.

```
. _pctile res, percentiles(2.5,97.5)

.
. return list

scalars:
                r(r1) =   -.1121157556772232
                r(r2) =   .2055689990520477
```

3.2.3   List of Residual from percentile 2.5th and 97.5th
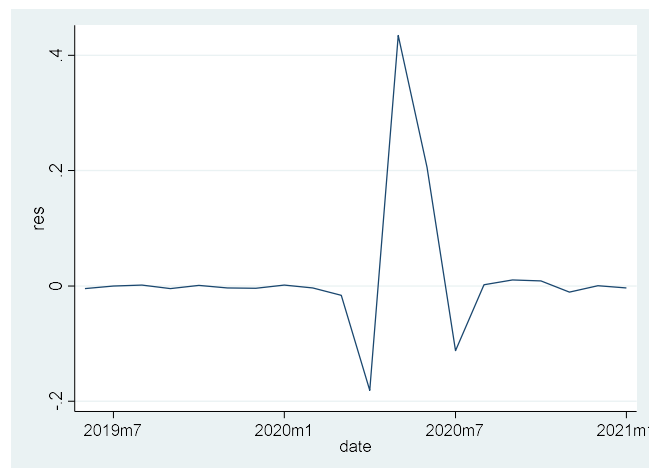
3.2.4   Time Series of Residuals from 2019m6 to 2021m1 (dates of percentile 2.5 and 97.5)

The reason for the difference is that the time series of residuals show a drop and an extreme increase between 2020m3 (March 2020) and 2020m7 (July 2020), which happened at the same time frame as the quarantine and the business closures occurred due to the COVID-19 pandemic. We also must consider that Orlando has one of the highest international tourism in Florida because of their amusement parks like Disney World. Orlando-Kissimmee-Sanford's sudden job

loss, restoration of employment, and being a spot for high international tourism has caused such a disruption to the forecast to the point the upper bound difference is larger than the lower bound difference.

. list npy nub nlb if date==tm(2021m3)

	npy	nub	nlb
375.	1042.497	1181.393	919.9315
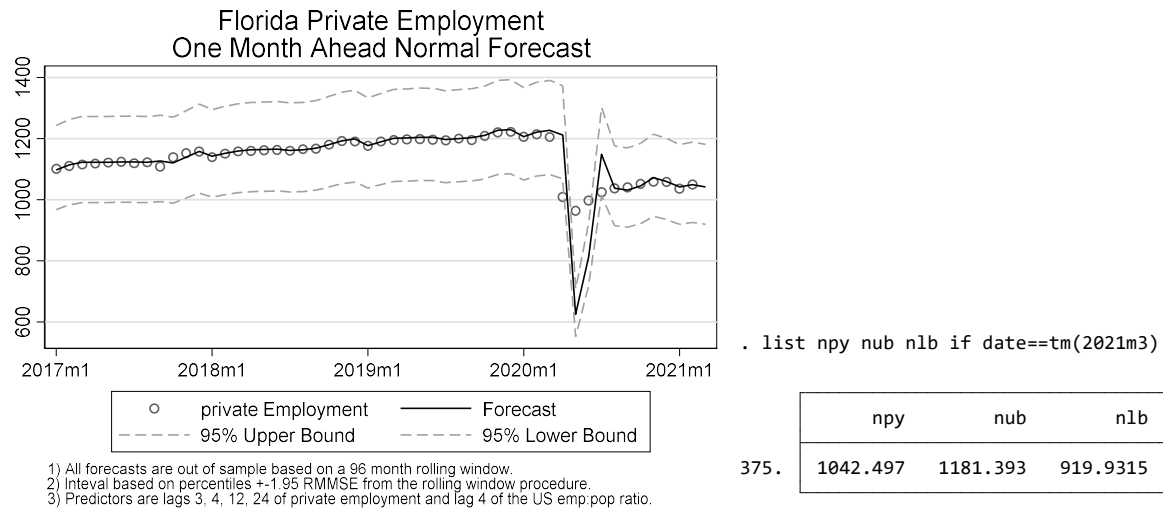
3.2.5   Normal Forecast for Florida Private Employment to predict 2021m3

The normal forecast has March 2021 have the predictive forecast of 1042.497, while the upper bound is 1181.393 which is a difference of 138.896 and the lower bound is 919.9315 which is a difference of 122.565, which is a better forecast than the empirical forecast. The normal forecast is more stabilize and less sensitive to the drop and rise of total private employment compared to empirical forecast.

Private Employment Empirical Forecast Error Distribution
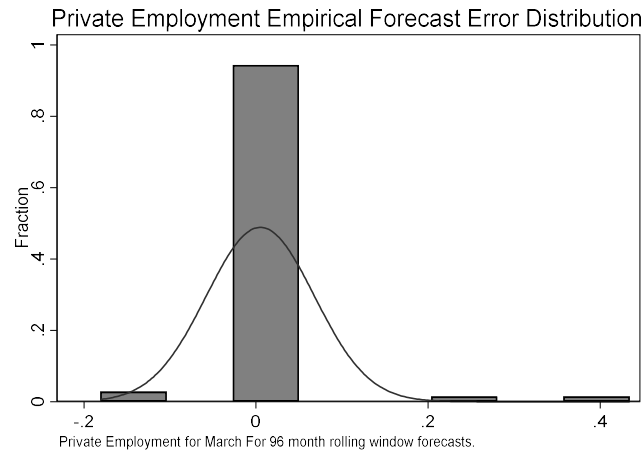
3.2.6   Private Employment Empirical Forecast Error Distribution

The private employment empirical forecast error distribution shows that 0 has the most fraction

distribution compared to any error. This shows that error distribution happens rarely but can

occur in -2, 2, or 4. The error distribution illustrated this statement by varying a bell curve based

on the bar distributions of the errors.

Private Employment Quantile-Normal Plot of Forecast Error
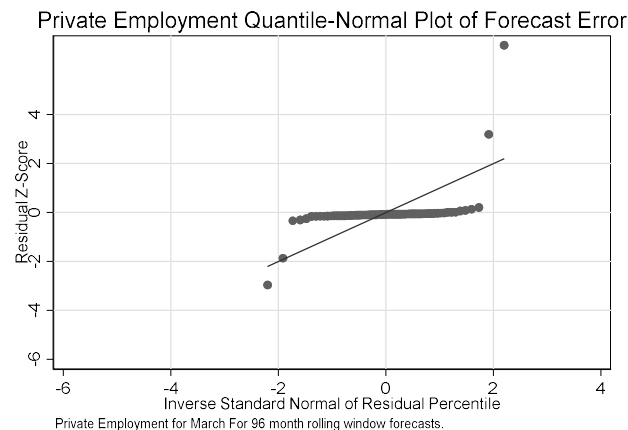
3.2.7   Private Employment Quantile-Normal Plot of Forecast Error

The private employment quantile-normal plot of forecast error is in relation to inverse standard

normal of residual percentile with percentile ranging from 2.5 to 97.5 and residual z-score.

It also shows that the smoothed plot does not reflect well to the point distribution. The reason for this is that there are outliers below and above the main plot. The outliers were created from the Orlando-Kissimmee-Sanford's COVID-19 business closures that led to a significant decrease in private employment and the sudden increase of employment due to some quarantine restrictions being levied and allowed employees to work again.

4. Predict Forecast for Average Weekly Earnings in Florida for March 2021

4.1. Best Model Selection from GSREG and Rolling Window Technique

```
. scalar list
RWmaxobs180 =        133
RWminobs180 =        107
 RWrmse180 =  .01157142
RWmaxobs168 =        133
RWminobs168 =        107
 RWrmse168 =  .01157142
RWmaxobs156 =        133
RWminobs156 =        107
 RWrmse156 =  .01157142
RWmaxobs144 =        133
RWminobs144 =        107
 RWrmse144 =  .01157142
RWmaxobs132 =        132
RWminobs132 =        107
 RWrmse132 =  .01157144
RWmaxobs120 =        120
RWminobs120 =        107
 RWrmse120 =  .01136785
RWmaxobs108 =        108
RWminobs108 =        107
 RWrmse108 =  .01189654
RWmaxobs96 =         96
RWminobs96 =         96
  RWrmse96 =   .0110357
RWmaxobs84 =         84
RWminobs84 =         84
  RWrmse84 =  .01388502
RWmaxobs72 =         72
RWminobs72 =         72
  RWrmse72 =  .01457746
RWmaxobs60 =         60
RWminobs60 =         60
  RWrmse60 =  .01572275
RWmaxobs48 =         48
RWminobs48 =         48
  RWrmse48 =  .01707637
RWmaxobs36 =         36
RWminobs36 =         36
  RWrmse36 =  .01981397
```

```
. scalar list
RWmaxobs180 =        154
RWminobs180 =        130
 RWrmse180 =  .00829411
RWmaxobs168 =        154
RWminobs168 =        130
 RWrmse168 =  .00829411
RWmaxobs156 =        154
RWminobs156 =        130
 RWrmse156 =  .00829411
RWmaxobs144 =        144
RWminobs144 =        130
 RWrmse144 =  .00828246
RWmaxobs132 =        132
RWminobs132 =        130
 RWrmse132 =  .00803647
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00785828
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .00854019
RWmaxobs96 =         96
RWminobs96 =         96
  RWrmse96 =  .00807877
RWmaxobs84 =         84
RWminobs84 =         84
  RWrmse84 =  .00859697
RWmaxobs72 =         72
RWminobs72 =         72
  RWrmse72 =  .00843515
RWmaxobs60 =         60
RWminobs60 =         60
  RWrmse60 =  .00835812
RWmaxobs48 =         48
RWminobs48 =         48
  RWrmse48 =  .00899981
RWmaxobs36 =         36
RWminobs36 =         36
  RWrmse36 =  .01088103
```

```
. scalar list
RWmaxobs180 =        153
RWminobs180 =        129
 RWrmse180 =  .00974386
RWmaxobs168 =        153
RWminobs168 =        129
 RWrmse168 =  .00974386
RWmaxobs156 =        153
RWminobs156 =        129
 RWrmse156 =  .00974386
RWmaxobs144 =        144
RWminobs144 =        129
 RWrmse144 =  .00978351
RWmaxobs132 =        132
RWminobs132 =        129
 RWrmse132 =  .00949921
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00953922
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .01028995
RWmaxobs96 =         96
RWminobs96 =         96
  RWrmse96 =  .01023265
RWmaxobs84 =         84
RWminobs84 =         84
  RWrmse84 =  .01164557
RWmaxobs72 =         72
RWminobs72 =         72
  RWrmse72 =  .01149215
RWmaxobs60 =         60
RWminobs60 =         60
  RWrmse60 =  .01154391
RWmaxobs48 =         48
RWminobs48 =         48
  RWrmse48 =   .0122441
RWmaxobs36 =         36
RWminobs36 =         36
  RWrmse36 =  .01317656
```

```
. scalar list
RWmaxobs180 =        153
RWminobs180 =        129
 RWrmse180 =  .00865055
RWmaxobs168 =        153
RWminobs168 =        129
 RWrmse168 =  .00865055
RWmaxobs156 =        153
RWminobs156 =        129
 RWrmse156 =  .00865055
RWmaxobs144 =        144
RWminobs144 =        129
 RWrmse144 =  .00870146
RWmaxobs132 =        132
RWminobs132 =        129
 RWrmse132 =  .00865593
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00862317
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .00942076
RWmaxobs96 =         96
RWminobs96 =         96
  RWrmse96 =  .00918691
RWmaxobs84 =         84
RWminobs84 =         84
  RWrmse84 =  .01000511
RWmaxobs72 =         72
RWminobs72 =         72
  RWrmse72 =  .00953545
RWmaxobs60 =         60
RWminobs60 =         60
  RWrmse60 =  .00956966
RWmaxobs48 =         48
RWminobs48 =         48
  RWrmse48 =  .01079291
RWmaxobs36 =         36
RWminobs36 =         36
  RWrmse36 =  .01362003
```

```
. scalar list
RWmaxobs180 =        153
RWminobs180 =        129
 RWrmse180 =  .00984344
RWmaxobs168 =        153
RWminobs168 =        129
 RWrmse168 =  .00984344
RWmaxobs156 =        153
RWminobs156 =        129
 RWrmse156 =  .00984344
RWmaxobs144 =        144
RWminobs144 =        129
 RWrmse144 =   .0099045
RWmaxobs132 =        132
RWminobs132 =        129
 RWrmse132 =  .00987862
RWmaxobs120 =        120
RWminobs120 =        120
 RWrmse120 =  .00980841
RWmaxobs108 =        108
RWminobs108 =        108
 RWrmse108 =  .01026347
RWmaxobs96 =         96
RWminobs96 =         96
  RWrmse96 =  .01046207
RWmaxobs84 =         84
RWminobs84 =         84
  RWrmse84 =   .0119581
RWmaxobs72 =         72
RWminobs72 =         72
  RWrmse72 =  .01179911
RWmaxobs60 =         60
RWminobs60 =         60
  RWrmse60 =  .01197677
RWmaxobs48 =         48
RWminobs48 =         48
  RWrmse48 =  .01281748
RWmaxobs36 =         36
RWminobs36 =         36
  RWrmse36 =  .01360973
```

4.1.1   Best Model Selection for Average Weekly Earnings from GSREG Ranks Standard, 1, 2, 13, and 18

These 5 models were chosen based on the GSREG technique of checking the best GSREG rank in the data editor by their AIC, BIC, and R-squared values. The best model selection was done with the rolling window technique and chosen by the smallest RMSE from every rolling window result. Overall, the best GSREG rank model is rank 13 with RMSE value of 0.00862317; GSREG rank 13 will be furthered used for forecast in the next section.

4.2. Predict March One Time Forecasts

```
. scalar list
RWmaxobs96 =            96
RWminobs96 =            96
  RWrmse96 =   .02496229
```

4.2.1.   Rolling window program for GSREG Rank 13 for dlnavg_WeekDolla after 96 months

for minimum observations, maximum observations, and RWRMSE

For the new forecast, rolling window technique was done again for GSREG 13 for differences of log of average weekly earnings after 96 months to generate new variables: res (residuals), errsq (squared residual), Rwrmse (overall RMSE), RWminobs96 (minimum observations for RMSE), and RWmaxobs96 (maximum observations for RMSE). These new variables will be used for empirical forecasts and normal forecasts.

Average Weekly Earnings
One Month Ahead Emprical Forecast

```
. list epy eub elb if date==tm(2021m3)
```

	epy	eub	elb
375.	960.936	985.7129	936.0879
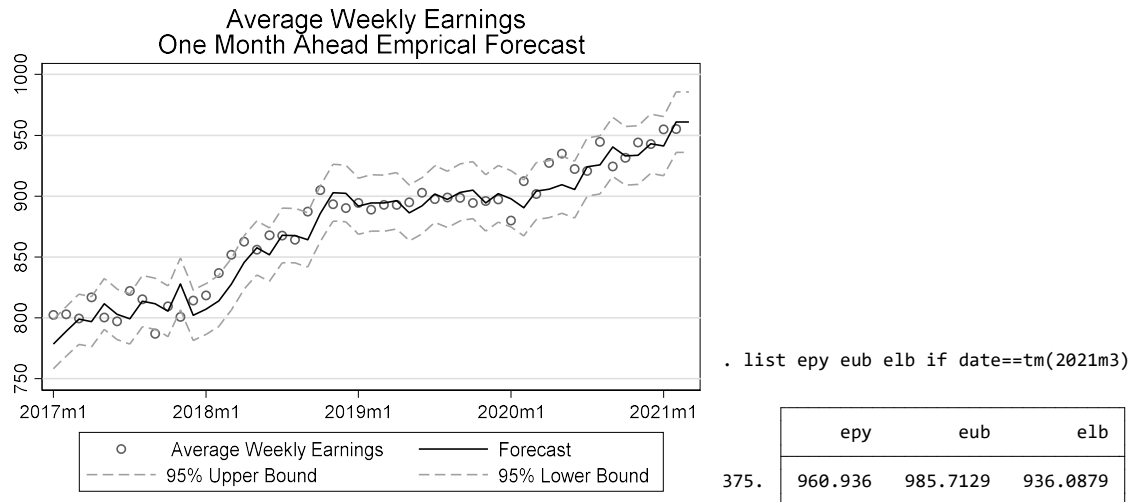
4.1.2   Empirical Forecast for Average Weekly Earnings to predict 2021m3

As you can see above, the empirical forecast of average weekly earnings has March 2021 have the predictive forecast of 960.936, while the upper bound is 985.7129 which is a difference of 24.7769 and the lower bound is 936.0876 which is a difference of 24.8481. In other words, the average weekly earnings will continue having a positive slope.

The difference is the same for the upper bound and lower bound unlike the empirical forecast of total private employment. This means that average weekly earnings did not have such a sensitive reaction to COVID-19 compared to total private employment, since minimum wage would not change regardless of the pandemic. It would only change if the government felt there is a need to do so to help the economy.

Average Weekly Earnings
One Month Ahead Normal Forecast

Legend:
○ Average Weekly Earnings — Forecast
— — 95% Upper Bound — — 95% Lower Bound

1) All forecasts are out of sample based on a 96 month rolling window.
2) Inteval based on percentiles +-1.95 RMMSE from the rolling window procedure.
3) Predictors are lags 3, 4, 12, 24 of nonfarm employment and lag 4 of the US emp:pop ratio.

```
. list npy nub nlb if date==tm(2021m3)
```

	npy	nub	nlb
375.	961.1282	1010.33	914.3224

4.1.3 Normal Forecast for Average Weekly Earnings to predict 2021m3

The normal forecast for average weekly earnings has March 2021 have the predictive forecast of 961.1282, while the upper bound is 1010.33 which is a difference of 49.2018 and the lower bound is 914.3224 which is a difference of 46.8056, which makes this normal forecast like the empirical forecast. Just like the empirical forecast, normal forecast is not sensitive to the business closures and the sudden drop and increase of employment.

Average Weekly Earnings Empirical Forecast Error Distributio
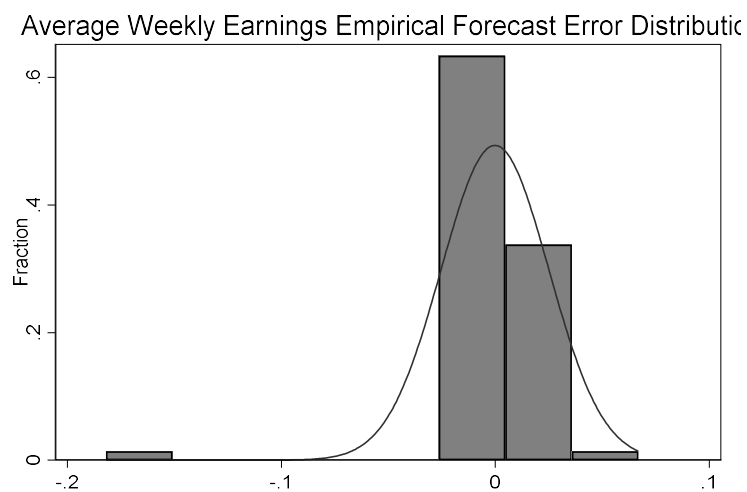
4.1.4 Average Weekly Earnings Empirical Forecast Error Distribution

The private employment empirical forecast error distribution shows that 0 to 1 has the most fraction distribution compared to any error. This means that error distribution occurs rarely but can still occur in small amounts. The error distribution illustrated this statement by varying a bell curve based on the bar distributions of the errors.
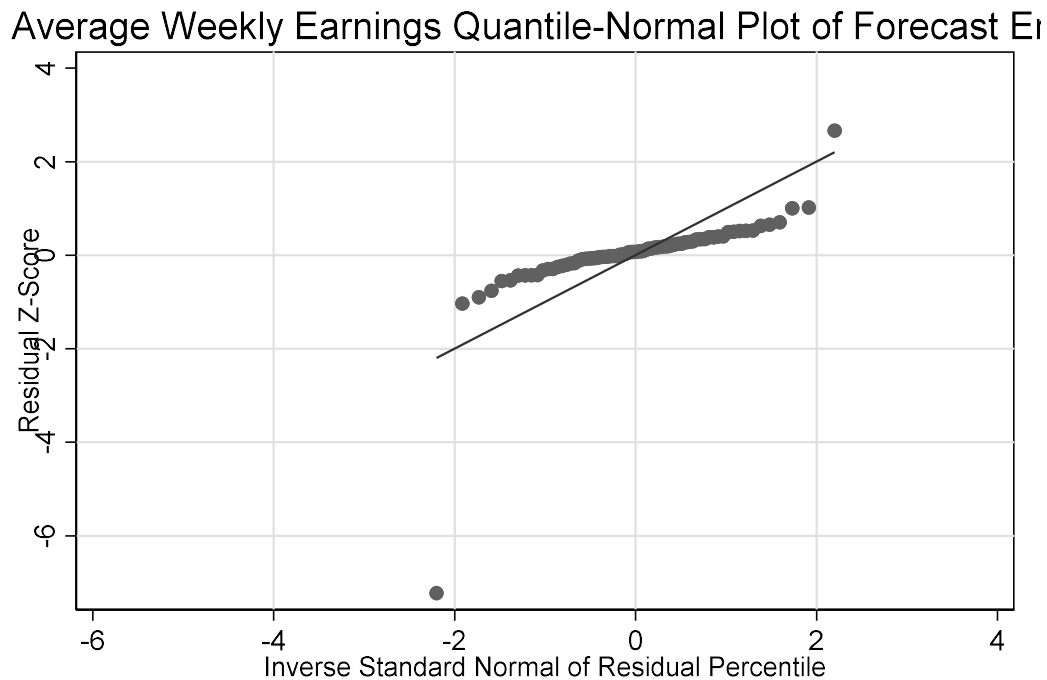
4.1.5   Average Weekly Earnings Quantile-Normal Plot of Forecast Error

The average weekly earnings quantile-normal plot of forecast error is in relation to inverse standard normal of residual percentile with percentile ranging from 2.5 to 97.5 and residual z-score. It also shows that the smoothed plot does relatively reflect well to the point distribution. The reason for this is that there are not many outliers that were created from the Orlando-Kissimmee-Sanford's COVID-19 business closures which led to a significant decrease in private employment and the sudden increase of employment due to some quarantine restrictions being levied and allowed employees to work again.

5. Conclusion

The project one-step forecasted the March 2021 non-seasonally adjusted estimate from the dataset that provided data from January 1990 to February 2021 for Orlando-Kissimmee-Sanford, FL; the forecast used average weekly earnings and the total employment as the focused variables and the rest as predictors. The COVID-19 pandemic also heavily hurt the metropolitan area since it had Orlando, which is one of the highest grossing international touristic destinations in Florida.

The empirical forecast for private employment showed that it was sensitive to the sudden drop and rise of employment due to the COVID-19 quarantine, which led to have a higher upper bound than it should normally be. The normal forecast was able to handle the drop and rise of employment better than the empirical forecast since the upper bound difference and lower bound difference are similar.

The empirical forecast for average weekly earnings showed that it was not sensitive to the sudden drop and rise of employment due to the COVID-19 quarantine, which led to have a more well-behaved forecast and that the weekly earnings will increase in March 2021. The normal forecast was able to handle the drop and rise of employment since the upper bound difference and lower bound difference are similar.

This suggest that average weekly earnings are less sensitive to the business closures and quarantine than total private employment since total private employment is directly affected by the sudden job loss and job gain. Unlike total private employment, average weekly earnings would only change if the minimum wage suddenly changed.

6. Appendix A: Clean Do File

* Name: Marie Hasegawa

* Date: 4/3/2021

* Title: Hasegawa Orlando Project

clear

set more off

cd "C:\Users\Jing Jing\Desktop\Orlando Time Series Project"

log using "Hasegawa Orlando Project", replace

import delimited using "Time_Series_Orlando_Project_Monthly.txt"

*smu12367400500000001 refers to All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA)

*smu12367400500000002 refers to Average Hourly Earnings of All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA)

*smu12367400500000003 refers to Average Weekly Earnings of All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA)

*smu12367400500000011 refers to Average Weekly Hours of All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA)

** data prep

rename date datestring

gen dateday=date(datestring,"YMD")

gen date=mofd(dateday)

format date %tm

tsset date

tsappend, add(1)

generate month=month(dofm(date))

keep if date>=tm(1990m1)

*All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA), source: Federal Reserve Bank of St. Louis, U.S. Bureau of Labor Statistics, Thousands of Persons

rename smu12367400500000001 total_priv_emp1000

*generate month=month(dateday)

* Average Weekly Hours of All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA), Federal Reserve Bank of St. Louis U.S. Bureau of Labor Statistics, Hours per Week

rename smu12367400500000002 avg_weekly_hourly

*Average Hourly Earnings of All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA), Federal Reserve Bank of St. Louis U.S. Bureau of Labor Statistics, Dollars per Hour

rename smu12367400500000003 avg_hourly_dollar

*Average Weekly Earnings of All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA), Federal Reserve Bank of St. Louis U.S. Bureau of Labor, Dollars per Week   Statistics

rename smu12367400500000011 avg_weekly_dollar

gen lnemp1000=ln(total_priv_emp1000)

gen lnavg_WeekHour=ln(avg_weekly_hour)

gen lnavg_HourDolla=ln(avg_hourly_dollar)

gen lnavg_WeekDolla=ln(avg_weekly_dollar)

tab month, generate(m)

*summary statistics

summarize date lnemp1000 lnavg_WeekDolla lnavg_HourDolla lnavg_WeekHour

*estat ic

*regression

reg d.lnavg_WeekDolla l(1,2,3,6,12,24)d.lnavg_WeekDolla l(1,2,3)d.lnemp1000

l(1,2,3)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour

reg d.lnemp1000 l(1,2,3,6,12,24)d.lnemp1000 l(1,2,3)d.lnavg_WeekDolla

l(1,2,3)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour

*ACs and PACs

ac lnavg_WeekDolla if tin(1980m1,2021m2)

pac lnavg_WeekDolla if tin(1980m1,2021m2)

ac lnemp1000 if tin(1980m1,2021m2)

pac lnemp1000 if tin(1980m1,2021m2)

**So, need to difference

pac d.lnemp1000 if tin(1980m1,2021m2)

**So, need to difference

ac d.lnemp1000 if tin(1980m1,2021m2)

**So, need to difference

pac d.lnavg_WeekDolla if tin(1980m1,2021m2)

**So, need to difference

ac d.lnavg_WeekDolla if tin(1980m1,2021m2)

*tslines

tsline lnemp1000 lnavg_WeekDolla lnavg_HourDolla lnavg_WeekHour

tsline total_priv_emp1000 avg_weekly_hourly avg_hourly_dollar avg_weekly_dollar

*generate differences and lags thereof for use with gsreg

*lnemp1000 ***

gen dlnemp1000=d.lnemp1000

gen ldlnemp1000=ld.lnemp1000

gen l2dlnemp1000=l2d.lnemp1000

gen l3dlnemp1000=l3d.lnemp1000

gen l6dlnemp1000=l6d.lnemp1000

gen l12dlnemp1000=l12d.lnemp1000

gen l24dlnemp1000=l24d.lnemp1000

*lnavg_WeekDolla ***

gen dlnavg_WeekDolla=d.lnavg_WeekDolla

gen ldlnavg_WeekDolla=ld.lnavg_WeekDolla

gen l2dlnavg_WeekDolla=l2d.lnavg_WeekDolla

gen l3dlnavg_WeekDolla=l3d.lnavg_WeekDolla

gen l6dlnavg_WeekDolla=l6d.lnavg_WeekDolla

gen l12dlnavg_WeekDolla=l12d.lnavg_WeekDolla

gen l24dlnavg_WeekDolla=l24d.lnavg_WeekDolla

*lnavg_HourDolla

gen ldlnavg_HourDolla=ld.lnavg_HourDolla

gen l2dlnavg_HourDolla=l2d.lnavg_HourDolla

gen l3dlnavg_HourDolla=l3d.lnavg_HourDolla

*lnavg_WeekHour

gen ldlnavg_WeekHour=ld.lnavg_WeekHour

gen l2dlnavg_WeekHour=l2d.lnavg_WeekHour

gen l3dlnavg_WeekHour=l3d.lnavg_WeekHour

* FOR dlnemp1000

*gsreg dlnemp1000 ldlnemp1000 l2dlnemp1000 l3dlnemp1000 l6dlnemp1000 l12dlnemp1000

l24dlnemp1000 ldlnavg_WeekDolla l2dlnavg_WeekDolla l3dlnavg_WeekDolla

ldlnavg_HourDolla l2dlnavg_HourDolla l3dlnavg_HourDolla ldlnavg_WeekHour

l2dlnavg_WeekHour l3dlnavg_WeekHour, results(ps5models_dlnemp1000.dta) replace fix(m2

m3 m4 m5 m6 m7 m8 m9 m10 m11 m12) ncomb(1,9) aic outsample(24) nindex(-1 aic -1 bic -1

r_sqr_a) samesample

* FOR dlnavg_WeekDolla

* gsreg dlnavg_WeekDolla ldlnavg_WeekDolla l2dlnavg_WeekDolla l3dlnavg_WeekDolla l6dlnavg_WeekDolla l12dlnavg_WeekDolla l24dlnavg_WeekDolla ldlnemp1000 l2dlnemp1000 l3dlnemp1000 ldlnavg_HourDolla l2dlnavg_HourDolla l3dlnavg_HourDolla ldlnavg_WeekHour l2dlnavg_WeekHour l3dlnavg_WeekHour, results(ps5models_dlnavg_WeekDolla.dta) replace fix(m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12) ncomb(1,9) aic outsample(24) nindex(-1 aic -1 bic -1 r_sqr_a) samesample

/*

Checking the gsreg output, the best model for dlnemp1000:

GRSEG Rank NORMAL:

     d.lnemp1000 l(1,2,3,6,12,24)d.lnemp1000 l(1,2,3)d.lnavg_WeekDolla l(1,2,3)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour

GRSEG Rank 1 has aic, bic, and r_sqr_a of -1195.081, -1147.676, and .810672:

     d.lnemp1000 l(1,2,3)d.lnemp1000 ld.lnavg_WeekHour

GRSEG Rank 2 has aic, bic, and r_sqr_a of -1195.752, -1145.384, and .812701:

d.lnemp1000 l(1,2,3)d.lnemp1000 l(2)d.lnavg_WeekDolla ld.lnavg_WeekHour

GRSEG Rank 5 has aic, bic, and r_sqr_a of -1198.513, -1145.181, and .8173841:

d.lnemp1000 l(1,2,3)d.lnemp1000 ld.lnavg_WeekDolla ld.lnavg_HourDolla

ld.lnavg_WeekHour

GRSEG Rank 13 has aic, bic, and r_sqr_a of -1199.434, -1143.14, and .819634:

d.lnemp1000 l(1,2,3)d.lnemp1000 l(1,2)d.lnavg_WeekDolla ld.lnavg_HourDolla

ld.lnavg_WeekHour

Checking the gsreg output, the best model for dlnavg_WeekDolla:

GRSEG Rank NORMAL:

d.lnavg_WeekDolla l(1,2,3,6,12,24)d.lnavg_WeekDolla l(1,2,3)d.lnemp1000

l(1,2,3)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour

GRSEG Rank 1 has aic, bic, and r_sqr_a of -658.9932, -622.5409, and .0889874:

d.lnavg_WeekDolla ld.lnavg_WeekDolla

GRSEG Rank 2 has aic, bic, and r_sqr_a of -660.822, -621.5657, and .1089599:

d.lnavg_WeekDolla l(1,2)d.lnavg_WeekDolla

GRSEG Rank 13 has aic, bic, and r_sqr_a of -660.6411, -618.5807, and .1139424:

d.lnavg_WeekDolla ld.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_WeekHour

GRSEG Rank 18 has aic, bic, and r_sqr_a of -660.3221, -618.2617, and .1116227:

d.lnavg_WeekDolla l(1,2)d.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_WeekHour

*/

****

****

*Rolling window program for GSREG Normal for dlnemp1000

```
scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

        forvalues t=696/722 {

        gen wstart=`t'-`w'

        gen wend=`t'-1

        reg d.lnemp1000 l(1,2,3,6,12,24)d.lnemp1000 l(1,2,3)d.lnavg_WeekDolla
l(1,2,3)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11
m12 if date>=wstart & date<=wend

        replace nobs=e(N) if date==`t'

        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend

        }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs
```

```
scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list
```

```
*Rolling window program for GSREG Rank 1 for dlnemp1000

scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

        forvalues t=696/722 {

        gen wstart=`t'-`w'

        gen wend=`t'-1

        reg d.lnemp1000 l(1,2,3)d.lnemp1000 ld.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9
m10 m11 m12 if date>=wstart & date<=wend

        replace nobs=e(N) if date==`t'
```

```
        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend

        }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs

scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list


*Rolling window program for GSREG Rank 2 for dlnemp1000

scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.
```

```
gen nobs=.

        forvalues t=696/722 {

        gen wstart=`t'-`w'

        gen wend=`t'-1

        reg d.lnemp1000 l(1,2,3)d.lnemp1000 l(2)d.lnavg_WeekDolla ld.lnavg_WeekHour m2
m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

        replace nobs=e(N) if date==`t'

        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend

        }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs

scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}
```

scalar list

*Rolling window program for GSREG Rank 5 for dlnemp1000

scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

    forvalues t=696/722 {

    gen wstart=`t'-`w'

    gen wend=`t'-1

    reg d.lnemp1000 l(1,2,3)d.lnemp1000 ld.lnavg_WeekDolla ld.lnavg_HourDolla

ld.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart &

date<=wend

    replace nobs=e(N) if date==`t'

    predict ptemp

    replace pred=ptemp if date==`t'

    drop ptemp wstart wend

    }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs

scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list

*Rolling window program for GSREG Rank 13 for dlnemp1000

scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

forvalues t=696/722 {

gen wstart=`t'-`w'

gen wend=`t'-1

```
        reg d.lnemp1000 l(1,2,3)d.lnemp1000 l(1,2)d.lnavg_WeekDolla ld.lnavg_HourDolla

ld.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart &

date<=wend

        replace nobs=e(N) if date==`t'

        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend

        }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs

scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list
```

* Normal for dlnemp1000: RWrmse96 = .00308708

* GSREG Rank 1 for dlnemp1000: RWrmse96 = .00249426

**** BEST SELECTION: GSREG Rank 2 for dlnemp1000: RWrmse72 = .00244325****

* GSREG Rank 5 for dlnemp1000: RWrmse96 = .00263625

* GSREG Rank 13 for dlnemp1000: RWrmse72 = .00267527

****

****

*Rolling window program for GSREG Normal for dlnavg_WeekDolla

scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

    forvalues t=696/722 {

    gen wstart=`t'-`w'

    gen wend=`t'-1

```
reg d.lnavg_WeekDolla l(1,2,3,6,12,24)d.lnavg_WeekDolla l(1,2,3)d.lnemp1000

l(1,2,3)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11

m12 if date>=wstart & date<=wend

        replace nobs=e(N) if date==`t'

        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend

        }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs

scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list


*Rolling window program for GSREG 1 for dlnavg_WeekDolla
```

```
scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

        forvalues t=696/720 {

        gen wstart=`t'-`w'

        gen wend=`t'-1

        reg d.lnavg_WeekDolla ld.lnavg_WeekDolla m2 m3 m4 m5 m6 m7 m8 m9 m10 m11
m12 if date>=wstart & date<=wend

        replace nobs=e(N) if date==`t'

        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend

        }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs

scalar RWminobs`w'=r(min)
```

```
scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list


*Rolling window program for GSREG 2 for dlnavg_WeekDolla

scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

        forvalues t=696/720 {

        gen wstart=`t'-`w'

        gen wend=`t'-1

        reg d.lnavg_WeekDolla l(1,2)d.lnavg_WeekDolla m1 m2 m3 m4 m5 m6 m7 m8 m9 m10
m11 m12 if date>=wstart & date<=wend

        replace nobs=e(N) if date==`t'

        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend
```

```
            }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs

scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list



*Rolling window program for GSREG 13 for dlnavg_WeekDolla

scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

        forvalues t=696/720 {

        gen wstart=`t'-`w'
```

```
    gen wend=`t'-1

    reg d.lnavg_WeekDolla ld.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_WeekHour
m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

    replace nobs=e(N) if date==`t'

    predict ptemp

    replace pred=ptemp if date==`t'

    drop ptemp wstart wend

    }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs

scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list
```

*Rolling window program for GSREG 18 for dlnavg_WeekDolla

```
scalar drop _all

quietly forvalues w=36(12)180 {

gen pred=.

gen nobs=.

        forvalues t=696/720 {

        gen wstart=`t'-`w'

        gen wend=`t'-1

        reg d.lnavg_WeekDolla l(1,2)d.lnavg_WeekDolla l(2)d.lnemp1000
l(2)d.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart &
date<=wend

        replace nobs=e(N) if date==`t'

        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend

        }

gen errsq=(pred-d.lnemp1000)^2

summ errsq

scalar RWrmse`w'=r(mean)^.5

summ nobs
```

scalar RWminobs`w'=r(min)

scalar RWmaxobs`w'=r(max)

drop errsq pred nobs

}

scalar list

* Normal for dlnavg_WeekDolla: RWrmse96 = .01143803

*GSREG Rank 1 for dlnavg_WeekDolla: RWrmse120 = .00885828

* GSREG Rank 2 for dlnavg_WeekDolla: RWrmse132 = .00949921

**** BEST SELECTION: GSREG Rank 13 for dlnavg_WeekDolla: RWrmse120 = .00862317

* GSREG Rank 18 for dlnavg_WeekDolla: RWrmse120 = .00980841

****

*

**** BEST SELECTION: GSREG Rank 2 for dlnemp1000: RWrmse72 = .00244325****

*GRSEG Rank 2 has aic, bic, and r_sqr_a of -1195.752, -1145.384, and .812701:

*   d.lnemp1000 l(1,2,3)d.lnemp1000 l(2)d.lnavg_WeekDolla ld.lnavg_WeekHour

*Rolling window program for GSREG Rank 2 for dlnemp1000

```
scalar drop _all


gen pred=.

gen nobs=.

        forvalues t=663/733 {

        gen wstart=`t'-96

        gen wend=`t'-1

        reg d.lnemp1000 l(1,2,3)d.lnemp1000 l(2)d.lnavg_WeekDolla ld.lnavg_WeekHour m2
m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

        replace nobs=e(N) if date==`t'

        predict ptemp

        replace pred=ptemp if date==`t'

        drop ptemp wstart wend

        }

gen res=d.lnemp1000-pred

gen errsq=res^2

summ errsq
```

```
scalar RWrmse96=r(mean)^.5

summ nobs

scalar RWminobs96=r(min)

scalar RWmaxobs96=r(max)



scalar list



*Forecast from selected model for dlnemp1000



reg d.lnemp1000 l(1,2,3,6,12,24)d.lnemp1000 l(1,2,3)d.lnavg_WeekDolla m2 m3 m4 m5 m6 m7
m8 m9 m10 m11 m12 if tin(2017m1,2021m2)

predict temp if date==tm(2021m3)

replace pred=temp if date==tm(2021m3)



*Empirical forecast and interval for dlnemp1000

gen expres=exp(res)

summ expres

gen epy=exp(l.lnemp1000+pred)*r(mean)

_pctile res, percentiles(2.5,97.5)
```

```
gen eub=epy*exp(r(r2))

gen elb=epy*exp(r(r1))

twoway (scatter total_priv_emp1000 date if tin(2017m1,2021m2) , m(Oh) ) (tsline epy eub elb if
tin(2017m1,2021m3) , lpattern(solid dash dash) lcolor(black gs10 gs10) ) , saving(ps5_fcst,
replace) scheme(s1mono) ylabel(,grid) xtitle("") legend(label(1 "Private Employment") label(2
"Forecast") label(3 "95% Upper Bound") label(4 "95% Lower Bound") )  title("Florida Private
Employment" "One Month Ahead Emprical Forecast")



graph export ps5empfcst.emf, replace



list epy eub elb if date==tm(2021m3)




*Normal forecast and interval for dlnemp1000

* 2 sigma interval

gen npy=exp(l.lnemp1000+pred+(RWrmse96^2)/2)

gen nub=npy*exp(2*RWrmse96)
```

```
gen nlb=npy/exp(2*RWrmse96)
```

```
twoway (scatter total_priv_emp1000 date if tin(2017m1,2021m2) , m(Oh) )        (tsline npy nub
nlb if tin(2017m1,2021m3) , lpattern(solid dash dash) lcolor(black gs10 gs10) ) ,
saving(ps5_fcst, replace) scheme(s1mono) ylabel(,grid) xtitle("") legend(label(1 "private
Employment") label(2 "Forecast") label(3 "95% Upper Bound") label(4 "95% Lower Bound") )
title("Florida Private Employment" "One Month Ahead Normal Forecast") note("1) All forecasts
are out of sample based on a 96 month rolling window." "2) Inteval based on percentiles +-1.95
RMMSE from the rolling window procedure." "3) Predictors are lags 3, 4, 12, 24 of private
employment and lag 4 of the US emp:pop ratio." )
```

```
graph export ps5normfcst.emf, replace
```

```
list npy nub nlb if date==tm(2021m3)
```

hist res, frac normal scheme(s1mono) title("Private Employment Empirical Forecast Error Distribution") xtitle("") note("Private Employment for March For 96 month rolling window forecasts.")

graph export ps5errdist.emf , replace

summ res

gen nres=(res-r(mean))/r(sd)

qnorm nres, scheme(s1mono) title("Private Employment Quantile-Normal Plot of Forecast Error") xtitle("Inverse Standard Normal of Residual Percentile") ytitle("Residual Z-Score") xlabel(-6(2)4,grid) ylabel(-6(2)4,grid) note("Private Employment for March For 96 month rolling window forecasts.")

graph export ps5qnorm.emf , replace

*check the information

_pctile res, percentiles(2.5,97.5)

return list

summarize date

summarize date if res>=.2055689990520477

summarize date if res==.2055689990520477

summarize date if res==-.1121157556772232

tsline res if tin(2019m6, 2021m1)

****

*

**** BEST SELECTION: GSREG Rank 13 for dlnavg_WeekDolla: RWrmse120 = .00862317

since it is the 2nd smallest RWMSE and has more variables

*Rolling window program for GSREG Rank 2 for dlnavg_WeekDolla

scalar drop _all

gen pred=.

gen nobs=.

      forvalues t=663/733 {

      gen wstart=`t'-96

      gen wend=`t'-1

```
reg d.lnavg_WeekDolla ld.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_WeekHour

m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

    replace nobs=e(N) if date==`t'

    predict ptemp

    replace pred=ptemp if date==`t'

    drop ptemp wstart wend

    }

gen res=d.lnemp1000-pred

gen errsq=res^2

summ errsq

scalar RWrmse96=r(mean)^.5

summ nobs

scalar RWminobs96=r(min)

scalar RWmaxobs96=r(max)


scalar list

**********************************

*Forecast from selected model for dlnavg_WeekDolla
```

```
reg d.lnavg_WeekDolla ld.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_WeekHour m2 m3
m4 m5 m6 m7 m8 m9 m10 m11 m12 if tin(2017m1,2021m2)

predict temp if date==tm(2021m3)

replace pred=temp if date==tm(2021m3)



*Empirical forecast and interval for dlnavg_WeekDolla

gen expres=exp(res)

summ expres

gen epy=exp(l.lnavg_WeekDolla+pred)*r(mean)

_pctile res, percentiles(2.5,97.5)



gen eub=epy*exp(r(r2))

gen elb=epy*exp(r(r1))

twoway (scatter avg_weekly_dollar date if tin(2017m1,2021m2) , m(Oh) ) (tsline epy eub elb if
tin(2017m1,2021m3) , lpattern(solid dash dash) lcolor(black gs10 gs10) ) , saving(ps5_fcst,
replace) scheme(s1mono) ylabel(,grid) xtitle("") legend(label(1 " Average Weekly Earnings")
label(2 "Forecast") label(3 "95% Upper Bound") label(4 "95% Lower Bound") )  title(" Average
Weekly Earnings" "One Month Ahead Emprical Forecast")
```

```
graph export ps5empfcst.emf, replace


list epy eub elb if date==tm(2021m3)
```

*Normal forecast and interval for dlnavg_WeekDolla

* 2 sigma interval

```
gen npy=exp(l.lnavg_WeekDolla+pred+(RWrmse96^2)/2)

gen nub=npy*exp(2*RWrmse96)

gen nlb=npy/exp(2*RWrmse96)
```

```
twoway (scatter avg_weekly_dollar date if tin(2017m1,2021m2) , m(Oh) )          (tsline npy nub
nlb if tin(2017m1,2021m3) , lpattern(solid dash dash) lcolor(black gs10 gs10) ) ,
saving(ps5_fcst, replace) scheme(s1mono) ylabel(,grid) xtitle("") legend(label(1 " Average
Weekly Earnings") label(2 "Forecast") label(3 "95% Upper Bound") label(4 "95% Lower
```

Bound")) title(" Average Weekly Earnings" "One Month Ahead Normal Forecast") note("1) All forecasts are out of sample based on a 96 month rolling window." "2) Inteval based on percentiles +-1.95 RMMSE from the rolling window procedure." "3) Predictors are lags 3, 4, 12, 24 of private employment and lag 4 of the US emp:pop ratio.")

graph export ps5normfcst.emf, replace

list npy nub nlb if date==tm(2021m3)

hist res, frac normal scheme(s1mono) title(" Average Weekly Earnings Empirical Forecast Error Distribution") xtitle("") note("Private Employment for March For 96 month rolling window forecasts.")

graph export ps5errdist.emf , replace

summ res

gen nres=(res-r(mean))/r(sd)

qnorm nres, scheme(s1mono) title(" Average Weekly Earnings Quantile-Normal Plot of Forecast Error") xtitle("Inverse Standard Normal of Residual Percentile") ytitle("Residual Z-

Score") xlabel(-6(2)4,grid) ylabel(-6(2)4,grid) note("Private Employment for March For 96 month rolling window forecasts.")

graph export ps5qnorm.emf , replace

7. Appendix B: Log File

----

    name: <unnamed>

    log: C:\Users\Jing Jing\Desktop\Orlando Time Series Project\Hasegawa Or

> lando Project.smcl

  log type: smcl

 opened on: 30 Apr 2021, 14:43:26

.

. import delimited using "Time_Series_Orlando_Project_Monthly.txt"

(5 vars, 374 obs)

.

.

.

. *smu12367400500000001 refers to All Employees: Total Private in Orlando-Kissi

> mmee-Sanford, FL (MSA)

.

.

.

. *smu12367400500000002 refers to Average Hourly Earnings of All Employees: Tot

> al Private in Orlando-Kissimmee-Sanford, FL (MSA)

.

.

.

. *smu12367400500000003 refers to Average Weekly Earnings of All Employees: Tot

> al Private in Orlando-Kissimmee-Sanford, FL (MSA)

.

.

.

. *smu12367400500000011 refers to Average Weekly Hours of All Employees: Total

> Private in Orlando-Kissimmee-Sanford, FL (MSA)

.

.

.

. ** data prep

.

. rename date datestring

.

. gen dateday=date(datestring,"YMD")

.

. gen date=mofd(dateday)

.

. format date %tm

.

. tsset date

time variable: date, 1990m1 to 2021m2

delta: 1 month

.

. tsappend, add(1)

.

. generate month=month(dofm(date))

.

. keep if date>=tm(1990m1)

(0 observations deleted)

.

. *All Employees: Total Private in Orlando-Kissimmee-Sanford, FL (MSA), source:

> Federal Reserve Bank of St. Louis, U.S. Bureau of Labor Statistics, Thousand

> s of Persons

.

. rename smu12367400500000001 total_priv_emp1000

.

. *generate month=month(dateday)

.

.

.

. * Average Weekly Hours of All Employees: Total Private in Orlando-Kissimmee-S

> anford, FL (MSA), Federal Reserve Bank of St. Louis U.S. Bureau of Labor Stat

> istics, Hours per Week

.

. rename smu12367400500000002 avg_weekly_hourly

.

.

.

. *Average Hourly Earnings of All Employees: Total Private in Orlando-Kissimmee

> -Sanford, FL (MSA), Federal Reserve Bank of St. Louis U.S. Bureau of Labor St

> atistics, Dollars per Hour

.

. rename smu12367400500000003 avg_hourly_dollar

.

.

.

. *Average Weekly Earnings of All Employees: Total Private in Orlando-Kissimmee

> -Sanford, FL (MSA), Federal Reserve Bank of St. Louis U.S. Bureau of Labor, D

> ollars per Week   Statistics

.

. rename smu12367400500000011 avg_weekly_dollar

.

.

.

. gen lnemp1000=ln(total_priv_emp1000)

(1 missing value generated)

.

. gen lnavg_WeekHour=ln(avg_weekly_hour)

(205 missing values generated)

.

. gen lnavg_HourDolla=ln(avg_hourly_dollar)

(205 missing values generated)

.

. gen lnavg_WeekDolla=ln(avg_weekly_dollar)

(205 missing values generated)

.

.

.

. tab month, generate(m)

month	Freq.	Percent	Cum.
1	32	8.53	8.53
2	32	8.53	17.07
3	32	8.53	25.60
4	31	8.27	33.87
5	31	8.27	42.13

```
     6 |      31       8.27      50.40

     7 |      31       8.27      58.67

     8 |      31       8.27      66.93

     9 |      31       8.27      75.20

    10 |      31       8.27      83.47

    11 |      31       8.27      91.73

    12 |      31       8.27     100.00
------------+--------------------------------

   Total |     375    100.00
```

.

.

.

.

.

. *summary statistics

.

. summarize date lnemp1000 lnavg_WeekDolla lnavg_HourDolla lnavg_WeekHour


```
  Variable |     Obs      Mean   Std. Dev.     Min      Max
-------------+---------------------------------------------------------
     date |     375       547   108.3974       360      734
 lnemp1000 |     374   6.710787   .2483034   6.204962   7.108326
lnavg_Week~a |     170   6.682291   .0763219   6.529039   6.861984
lnavg_Hour~a |     170   3.112208   .0894843   2.961658   3.312366
lnavg_Week~r |     170   3.570082   .0249963   3.496508   3.634951
```

.

. *estat ic

.

.

.

. *regression

.

. reg d.lnavg_WeekDolla l(1,2,3,6,12,24)d.lnavg_WeekDolla l(1,2,3)d.lnemp1000 l
> (1,2,3)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour

```
      Source |      SS         df      MS     Number of obs  =      145
-------------+-----------------------------  F(15, 129)    =     2.31
       Model | .007645089      15 .000509673  Prob > F     =   0.0060
    Residual | .028420818     129 .000220316  R-squared    =   0.2120
-------------+-----------------------------  Adj R-squared =   0.1203
       Total | .036065907     144 .000250458  Root MSE     =   .01484


------------------------------------------------------------------------------
          D. |
lnavg_Week~a |   Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
         LD. |  304.2242  314.7868   0.97  0.336  -318.5891   927.0376
        L2D. |  -298.751  344.9801  -0.87  0.388  -981.3027   383.8006
        L3D. | -366.3673  322.1294  -1.14  0.258  -1003.708   270.9735
        L6D. |  .0052698  .0842246   0.06  0.950  -.1613707   .1719103
```

```
     L12D. |  .1224888   .079224    1.55   0.125   -.0342577   .2792353
     L24D. | -.0191252   .0741584  -0.26   0.797   -.1658495    .127599
           |
 lnemp1000 |
       LD. | -.0593622   .0780844  -0.76   0.449   -.213854    .0951296
      L2D. |  .1252628   .0800591   1.56   0.120   -.0331362   .2836617
      L3D. | -.0501117   .0784767  -0.64   0.524   -.2053798   .1051563
           |
lnavg_Hour~a |
       LD. | -304.5481   314.7855  -0.97   0.335   -927.3589   318.2627
      L2D. |  298.6936   344.9837   0.87   0.388   -383.8652   981.2523
      L3D. |  366.3007   322.1249   1.14   0.258   -271.0314   1003.633
           |
lnavg_Week~r |
       LD. | -304.6348   314.7831  -0.97   0.335   -927.4409   318.1713
      L2D. |  298.4829   344.9909   0.87   0.389    -384.09    981.0557
      L3D. |  366.3802   322.1316   1.14   0.257   -270.965    1003.725
           |
     _cons |  .0020144   .0013096   1.54   0.126   -.0005766   .0046055
--------------------------------------------------------------------------------
```

.

.

.

. reg d.lnemp1000 l(1,2,3,6,12,24)d.lnemp1000 l(1,2,3)d.lnavg_WeekDolla l(1,2,3
>)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour

```
     Source |      SS        df      MS      Number of obs =      166
```

```
-------------+------------------------------  F(15, 150)   =    3.51
      Model |  .012094794       15  .00080632  Prob > F    =   0.0000
   Residual |  .034493774      150  .000229958  R-squared   =   0.2596
-------------+------------------------------  Adj R-squared =   0.1856
      Total |  .046588568      165  .000282355  Root MSE    =   .01516
```

```
------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |
         LD. |  .2615398  .0783842   3.34  0.001   .1066601   .4164196
        L2D. | -.2112365  .0791655  -2.67  0.008  -.3676601  -.0548129
        L3D. |  .0180125  .0779861   0.23  0.818  -.1360805   .1721056
        L6D. | -.0390964  .0717038  -0.55  0.586  -.1807763   .1025836
       L12D. |  .4751734   .257197   1.85  0.067  -.0330234   .9833703
       L24D. |  .3084033   .252379   1.22  0.224  -.1902738   .8070804
             |
lnavg_Week~a |
         LD. | -277.3076  302.4758  -0.92  0.361  -874.9712    320.356
        L2D. |  -114.411  329.1583  -0.35  0.729  -764.7966   535.9746
        L3D. |  216.5959  307.8687   0.70  0.483  -391.7234   824.9153
             |
lnavg_Hour~a |
         LD. |  277.2677  302.4756   0.92  0.361  -320.3955   874.9309
        L2D. |  114.3161   329.161   0.35  0.729  -536.0749    764.707
        L3D. | -216.5276  307.8712  -0.70  0.483   -824.852   391.7968
             |
lnavg_Week~r |
```

```
   LD. |   277.246  302.4754   0.92  0.361   -320.4168   874.9088

   L2D. |  114.3234  329.1655   0.35  0.729   -536.0764   764.7233

   L3D. | -216.5957  307.8651  -0.70  0.483   -824.9079   391.7166

       |

  _cons | -.0006669  .0012692  -0.53  0.600   -.0031748   .0018409
```

.

.

.

. *ACs and PACs

.

. ac lnavg_WeekDolla if tin(1980m1,2021m2)

.

. pac lnavg_WeekDolla if tin(1980m1,2021m2)

.

.

.

. ac lnemp1000 if tin(1980m1,2021m2)

.

. pac lnemp1000 if tin(1980m1,2021m2)

.

.

.

. **So, need to difference

.

. pac d.lnemp1000 if tin(1980m1,2021m2)

.

. **So, need to difference

.

. ac d.lnemp1000 if tin(1980m1,2021m2)

.

.

.

.

.

. **So, need to difference

.

. pac d.lnavg_WeekDolla if tin(1980m1,2021m2)

.

. **So, need to difference

.

. ac d.lnavg_WeekDolla if tin(1980m1,2021m2)

.

.

.

.

.

. *tslines

.

. tsline lnemp1000 lnavg_WeekDolla lnavg_HourDolla lnavg_WeekHour

.

. tsline total_priv_emp1000 avg_weekly_hourly avg_hourly_dollar avg_weekly_doll
> ar

.

.

.

.

.

. *generate differences and lags thereof for use with gsreg

.

. *lnemp1000 ***

.

. gen dlnemp1000=d.lnemp1000
(2 missing values generated)

.

. gen ldlnemp1000=ld.lnemp1000

(2 missing values generated)

.

. gen l2dlnemp1000=l2d.lnemp1000

(3 missing values generated)

.

. gen l3dlnemp1000=l3d.lnemp1000

(4 missing values generated)

.

. gen l6dlnemp1000=l6d.lnemp1000

(7 missing values generated)

.

. gen l12dlnemp1000=l12d.lnemp1000

(13 missing values generated)

.

. gen l24dlnemp1000=l24d.lnemp1000

(25 missing values generated)

.

.

.

. *lnavg_WeekDolla ***

.

. gen dlnavg_WeekDolla=d.lnavg_WeekDolla

(206 missing values generated)

.

. gen ldlnavg_WeekDolla=ld.lnavg_WeekDolla

(206 missing values generated)

.

. gen l2dlnavg_WeekDolla=l2d.lnavg_WeekDolla

(207 missing values generated)

.

. gen l3dlnavg_WeekDolla=l3d.lnavg_WeekDolla

(208 missing values generated)

.

. gen l6dlnavg_WeekDolla=l6d.lnavg_WeekDolla

(211 missing values generated)

.

. gen l12dlnavg_WeekDolla=l12d.lnavg_WeekDolla

(217 missing values generated)

.

. gen l24dlnavg_WeekDolla=l24d.lnavg_WeekDolla

(229 missing values generated)

.

.

.

.

.

. *lnavg_HourDolla

.

. gen ldlnavg_HourDolla=ld.lnavg_HourDolla

(206 missing values generated)

.

. gen l2dlnavg_HourDolla=l2d.lnavg_HourDolla

(207 missing values generated)

.

. gen l3dlnavg_HourDolla=l3d.lnavg_HourDolla

(208 missing values generated)

.

.

.

. *lnavg_WeekHour

.

. gen ldlnavg_WeekHour=ld.lnavg_WeekHour

(206 missing values generated)

.

. gen l2dlnavg_WeekHour=l2d.lnavg_WeekHour

(207 missing values generated)

.

. gen l3dlnavg_WeekHour=l3d.lnavg_WeekHour

(208 missing values generated)

. *Rolling window program for GSREG Normal for dlnemp1000

.

. scalar drop _all

.

. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/722 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnemp1000 l(1,2,3,6,12,24)d.lnemp1000 l(1,2,3)d.lnavg_WeekDolla l(1,2,3

```
> )d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m
> 12 if date>=wstart & date<=wend
.
. replace nobs=e(N) if date==`t'
.
. predict ptemp
.
. replace pred=ptemp if date==`t'
.
. drop ptemp wstart wend
.
. }
.
. gen errsq=(pred-d.lnemp1000)^2
.
. summ errsq
.
. scalar RWrmse`w'=r(mean)^.5
.
. summ nobs
.
. scalar RWminobs`w'=r(min)
.
. scalar RWmaxobs`w'=r(max)
.
. drop errsq pred nobs
.
. }
```

.

. scalar list

RWmaxobs180 =   154

RWminobs180 =   128

 RWrmse180 = .00419142

RWmaxobs168 =   154

RWminobs168 =   128

 RWrmse168 = .00419142

RWmaxobs156 =   154

RWminobs156 =   128

 RWrmse156 = .00419142

RWmaxobs144 =   144

RWminobs144 =   128

 RWrmse144 =   .0041952

RWmaxobs132 =   132

RWminobs132 =   128

 RWrmse132 = .00413937

RWmaxobs120 =   120

RWminobs120 =   120

 RWrmse120 = .00455979

RWmaxobs108 =   108

RWminobs108 =   108

 RWrmse108 = .00432618

RWmaxobs96 =   96

RWminobs96 =   96

 RWrmse96 = .00437832

RWmaxobs84 =   84

RWminobs84 =   84

  RWrmse84 = .00476978

RWmaxobs72 =   72

RWminobs72 =   72

  RWrmse72 = .00494022

RWmaxobs60 =   60

RWminobs60 =   60

  RWrmse60 = .00505821

RWmaxobs48 =   48

RWminobs48 =   48

  RWrmse48 = .00628645

RWmaxobs36 =   36

RWminobs36 =   36

  RWrmse36 = .00638181

.

.

.

.

.

.

.

. *Rolling window program for GSREG Rank 1 for dlnemp1000

.

. scalar drop _all

.

```
. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/722 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnemp1000 l(1,2,3)d.lnemp1000 ld.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9
>  m10 m11 m12 if date>=wstart & date<=wend

.

. replace nobs=e(N) if date==`t'

.

. predict ptemp

.

. replace pred=ptemp if date==`t'

.

. drop ptemp wstart wend

.

. }

.

. gen errsq=(pred-d.lnemp1000)^2

.

. summ errsq
```

.

. scalar RWrmse`w'=r(mean)^.5

.

. summ nobs

.

. scalar RWminobs`w'=r(min)

.

. scalar RWmaxobs`w'=r(max)

.

. drop errsq pred nobs

.

. }

.

. scalar list

RWmaxobs180 =   156

RWminobs180 =   130

 RWrmse180 = .00373137

RWmaxobs168 =   156

RWminobs168 =   130

 RWrmse168 = .00373137

RWmaxobs156 =   156

RWminobs156 =   130

 RWrmse156 = .00373137

RWmaxobs144 =   144

RWminobs144 =   130

 RWrmse144 = .00374201

RWmaxobs132 =   132

RWminobs132 = 130

RWrmse132 = .00377204

RWmaxobs120 = 120

RWminobs120 = 120

RWrmse120 = .00387121

RWmaxobs108 = 108

RWminobs108 = 108

RWrmse108 = .00387392

RWmaxobs96 = 96

RWminobs96 = 96

RWrmse96 = .00373074

RWmaxobs84 = 84

RWminobs84 = 84

RWrmse84 = .00373807

RWmaxobs72 = 72

RWminobs72 = 72

RWrmse72 = .00375414

RWmaxobs60 = 60

RWminobs60 = 60

RWrmse60 = .00376525

RWmaxobs48 = 48

RWminobs48 = 48

RWrmse48 = .00390517

RWmaxobs36 = 36

RWminobs36 = 36

RWrmse36 = .00390738

.

.

.

. *Rolling window program for GSREG Rank 2 for dlnemp1000

.

. scalar drop _all

.

. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/722 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnemp1000 l(1,2,3)d.lnemp1000 l(2)d.lnavg_WeekDolla ld.lnavg_WeekHour m
> 2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

.

. replace nobs=e(N) if date==`t'

.

. predict ptemp

.

. replace pred=ptemp if date==`t'

.

. drop ptemp wstart wend

.

. }

.

. gen errsq=(pred-d.lnemp1000)^2

.

. summ errsq

.

. scalar RWrmse`w'=r(mean)^.5

.

. summ nobs

.

. scalar RWminobs`w'=r(min)

.

. scalar RWmaxobs`w'=r(max)

.

. drop errsq pred nobs

.

. }

.

. scalar list

RWmaxobs180 =   155

RWminobs180 =   129

 RWrmse180 = .00379294

RWmaxobs168 =   155

RWminobs168 =   129

RWrmse168 = .00379294

RWmaxobs156 =   155

RWminobs156 =   129

 RWrmse156 = .00379294

RWmaxobs144 =   144

RWminobs144 =   129

 RWrmse144 = .00379702

RWmaxobs132 =   132

RWminobs132 =   129

 RWrmse132 = .00380873

RWmaxobs120 =   120

RWminobs120 =   120

 RWrmse120 = .00403659

RWmaxobs108 =   108

RWminobs108 =   108

 RWrmse108 = .00405407

RWmaxobs96 =   96

RWminobs96 =   96

 RWrmse96 = .00397254

RWmaxobs84 =   84

RWminobs84 =   84

 RWrmse84 = .00394137

RWmaxobs72 =   72

RWminobs72 =   72

 RWrmse72 = .00393184

RWmaxobs60 =   60

RWminobs60 =   60

 RWrmse60 = .00389887

RWmaxobs48 =   48

RWminobs48 =   48

  RWrmse48 = .00423858

RWmaxobs36 =   36

RWminobs36 =   36

  RWrmse36 = .00423556

.

.

.

. *Rolling window program for GSREG Rank 5 for dlnemp1000

.

. scalar drop _all

.

. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/722 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

```
. reg d.lnemp1000 l(1,2,3)d.lnemp1000 ld.lnavg_WeekDolla ld.lnavg_HourDolla ld.
> lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=we
> nd
.
. replace nobs=e(N) if date==`t'
.
. predict ptemp
.
. replace pred=ptemp if date==`t'
.
. drop ptemp wstart wend
.
. }
.
. gen errsq=(pred-d.lnemp1000)^2
.
. summ errsq
.
. scalar RWrmse`w'=r(mean)^.5
.
. summ nobs
.
. scalar RWminobs`w'=r(min)
.
. scalar RWmaxobs`w'=r(max)
.
. drop errsq pred nobs
.
```

. }

.

. scalar list

RWmaxobs180 = 156

RWminobs180 = 130

 RWrmse180 = .00374622

RWmaxobs168 = 156

RWminobs168 = 130

 RWrmse168 = .00374622

RWmaxobs156 = 156

RWminobs156 = 130

 RWrmse156 = .00374622

RWmaxobs144 = 144

RWminobs144 = 130

 RWrmse144 = .00378429

RWmaxobs132 = 132

RWminobs132 = 130

 RWrmse132 = .00383294

RWmaxobs120 = 120

RWminobs120 = 120

 RWrmse120 = .00393096

RWmaxobs108 = 108

RWminobs108 = 108

 RWrmse108 = .00393316

RWmaxobs96 = 96

RWminobs96 = 96

 RWrmse96 = .00380907

RWmaxobs84 =   84

RWminobs84 =   84

  RWrmse84 = .00384687

RWmaxobs72 =   72

RWminobs72 =   72

  RWrmse72 = .00391817

RWmaxobs60 =   60

RWminobs60 =   60

  RWrmse60 = .00388777

RWmaxobs48 =   48

RWminobs48 =   48

  RWrmse48 = .00398452

RWmaxobs36 =   36

RWminobs36 =   36

  RWrmse36 = .00414303

.

.

.

. *Rolling window program for GSREG Rank 13 for dlnemp1000

.

. scalar drop _all

.

. quietly forvalues w=36(12)180 {

.

. gen pred=.

```
.

. gen nobs=.

.

. forvalues t=696/722 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnemp1000 l(1,2,3)d.lnemp1000 l(1,2)d.lnavg_WeekDolla ld.lnavg_HourDoll
> a ld.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & dat
> e<=wend

.

. replace nobs=e(N) if date==`t'

.

. predict ptemp

.

. replace pred=ptemp if date==`t'

.

. drop ptemp wstart wend

.

. }

.

. gen errsq=(pred-d.lnemp1000)^2

.

. summ errsq

.

. scalar RWrmse`w'=r(mean)^.5
```

.

. summ nobs

.

. scalar RWminobs`w'=r(min)

.

. scalar RWmaxobs`w'=r(max)

.

. drop errsq pred nobs

.

. }

.

. scalar list
RWmaxobs180 =   155
RWminobs180 =   129
 RWrmse180 = .00383636
RWmaxobs168 =   155
RWminobs168 =   129
 RWrmse168 = .00383636
RWmaxobs156 =   155
RWminobs156 =   129
 RWrmse156 = .00383636
RWmaxobs144 =   144
RWminobs144 =   129
 RWrmse144 = .00384729
RWmaxobs132 =   132
RWminobs132 =   129
 RWrmse132 = .00387908

RWmaxobs120 =   120

RWminobs120 =   120

 RWrmse120 = .00410311

RWmaxobs108 =   108

RWminobs108 =   108

 RWrmse108 = .00415109

RWmaxobs96 =   96

RWminobs96 =   96

 RWrmse96 = .00404472

RWmaxobs84 =   84

RWminobs84 =   84

 RWrmse84 = .00405905

RWmaxobs72 =   72

RWminobs72 =   72

 RWrmse72 =   .0040693

RWmaxobs60 =   60

RWminobs60 =   60

 RWrmse60 = .00401537

RWmaxobs48 =   48

RWminobs48 =   48

 RWrmse48 = .00424133

RWmaxobs36 =   36

RWminobs36 =   36

 RWrmse36 =   .0043153

.

.

.

.

.

. * Normal for dlnemp1000: RWrmse96 = .00308708

.

. * GSREG Rank 1 for dlnemp1000: RWrmse96 = .00249426

.

. **** BEST SELECTION: GSREG Rank 2 for dlnemp1000: RWrmse72 = .00244325****

.

. * GSREG Rank 5 for dlnemp1000: RWrmse96 = .00263625

.

. * GSREG Rank 13 for dlnemp1000: RWrmse72 = .00267527

.

.

.

.

.

. **
> ********

.

. *Rolling window program for GSREG Normal for dlnavg_WeekDolla

.

```
. scalar drop _all

.

. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/722 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnavg_WeekDolla l(1,2,3,6,12,24)d.lnavg_WeekDolla l(1,2,3)d.lnemp1000 l
> (1,2,3)d.lnavg_HourDolla l(1,2,3)d.lnavg_WeekHour m2 m3 m4 m5 m6 m7 m8 m9 m10
>  m11 m12 if date>=wstart & date<=wend

.

. replace nobs=e(N) if date==`t'

.

. predict ptemp

.

. replace pred=ptemp if date==`t'

.

. drop ptemp wstart wend

.

. }
```

.

. gen errsq=(pred-d.lnemp1000)^2

.

. summ errsq

.

. scalar RWrmse`w'=r(mean)^.5

.

. summ nobs

.

. scalar RWminobs`w'=r(min)

.

. scalar RWmaxobs`w'=r(max)

.

. drop errsq pred nobs

.

. }

.

. scalar list
RWmaxobs180 =   133
RWminobs180 =   107
 RWrmse180 = .01157142
RWmaxobs168 =   133
RWminobs168 =   107
 RWrmse168 = .01157142
RWmaxobs156 =   133
RWminobs156 =   107
 RWrmse156 = .01157142

RWmaxobs144 =   133

RWminobs144 =   107

 RWrmse144 = .01157142

RWmaxobs132 =   132

RWminobs132 =   107

 RWrmse132 = .01157144

RWmaxobs120 =   120

RWminobs120 =   107

 RWrmse120 = .01136785

RWmaxobs108 =   108

RWminobs108 =   107

 RWrmse108 = .01189654

RWmaxobs96 =   96

RWminobs96 =   96

  RWrmse96 =   .0110357

RWmaxobs84 =   84

RWminobs84 =   84

  RWrmse84 = .01388502

RWmaxobs72 =   72

RWminobs72 =   72

  RWrmse72 = .01457746

RWmaxobs60 =   60

RWminobs60 =   60

  RWrmse60 = .01572275

RWmaxobs48 =   48

RWminobs48 =   48

  RWrmse48 = .01707637

RWmaxobs36 =   36

RWminobs36 =   36

  RWrmse36 = .01981397

.

.

.

. *Rolling window program for GSREG 1 for dlnavg_WeekDolla

.

. scalar drop _all

.

. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/720 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnavg_WeekDolla ld.lnavg_WeekDolla m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12
> if date>=wstart & date<=wend

.

. replace nobs=e(N) if date==`t'

.

. predict ptemp

.

. replace pred=ptemp if date==`t'

.

. drop ptemp wstart wend

.

. }

.

. gen errsq=(pred-d.lnemp1000)^2

.

. summ errsq

.

. scalar RWrmse`w'=r(mean)^.5

.

. summ nobs

.

. scalar RWminobs`w'=r(min)

.

. scalar RWmaxobs`w'=r(max)

.

. drop errsq pred nobs

.

. }

.

. scalar list

RWmaxobs180 =   154

RWminobs180 =   130

 RWrmse180 = .00829411

RWmaxobs168 =   154

RWminobs168 =   130

 RWrmse168 = .00829411

RWmaxobs156 =   154

RWminobs156 =   130

 RWrmse156 = .00829411

RWmaxobs144 =   144

RWminobs144 =   130

 RWrmse144 = .00828246

RWmaxobs132 =   132

RWminobs132 =   130

 RWrmse132 = .00803647

RWmaxobs120 =   120

RWminobs120 =   120

 RWrmse120 = .00785828

RWmaxobs108 =   108

RWminobs108 =   108

 RWrmse108 = .00854019

RWmaxobs96 =   96

RWminobs96 =   96

 RWrmse96 = .00807877

RWmaxobs84 =   84

RWminobs84 =   84

 RWrmse84 = .00859697

RWmaxobs72 =   72

RWminobs72 =   72

RWrmse72 = .00843515

RWmaxobs60 =   60

RWminobs60 =   60

  RWrmse60 = .00835812

RWmaxobs48 =   48

RWminobs48 =   48

  RWrmse48 = .00899981

RWmaxobs36 =   36

RWminobs36 =   36

  RWrmse36 = .01088103

.

.

.

. *Rolling window program for GSREG 2 for dlnavg_WeekDolla

.

. scalar drop _all

.

. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/720 {

.

```
. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnavg_WeekDolla l(1,2)d.lnavg_WeekDolla m1 m2 m3 m4 m5 m6 m7 m8 m9 m10
> m11 m12 if date>=wstart & date<=wend

.

. replace nobs=e(N) if date==`t'

.

. predict ptemp

.

. replace pred=ptemp if date==`t'

.

. drop ptemp wstart wend

.

. }

.

. gen errsq=(pred-d.lnemp1000)^2

.

. summ errsq

.

. scalar RWrmse`w'=r(mean)^.5

.

. summ nobs

.

. scalar RWminobs`w'=r(min)

.

. scalar RWmaxobs`w'=r(max)
```

.

. drop errsq pred nobs

.

. }

.

. scalar list

RWmaxobs180 =   153

RWminobs180 =   129

 RWrmse180 = .00974386

RWmaxobs168 =   153

RWminobs168 =   129

 RWrmse168 = .00974386

RWmaxobs156 =   153

RWminobs156 =   129

 RWrmse156 = .00974386

RWmaxobs144 =   144

RWminobs144 =   129

 RWrmse144 = .00978351

RWmaxobs132 =   132

RWminobs132 =   129

 RWrmse132 = .00949921

RWmaxobs120 =   120

RWminobs120 =   120

 RWrmse120 = .00953922

RWmaxobs108 =   108

RWminobs108 =   108

 RWrmse108 = .01028995

RWmaxobs96 =   96

RWminobs96 =   96

  RWrmse96 = .01023265

RWmaxobs84 =   84

RWminobs84 =   84

  RWrmse84 = .01164557

RWmaxobs72 =   72

RWminobs72 =   72

  RWrmse72 = .01149215

RWmaxobs60 =   60

RWminobs60 =   60

  RWrmse60 = .01154391

RWmaxobs48 =   48

RWminobs48 =   48

  RWrmse48 =   .0122441

RWmaxobs36 =   36

RWminobs36 =   36

  RWrmse36 = .01317656

.

.

.

. *Rolling window program for GSREG 13 for dlnavg_WeekDolla

.

. scalar drop _all

.

```
. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/720 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnavg_WeekDolla ld.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_WeekHour
>  m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

.

. replace nobs=e(N) if date==`t'

.

. predict ptemp

.

. replace pred=ptemp if date==`t'

.

. drop ptemp wstart wend

.

. }

.

. gen errsq=(pred-d.lnemp1000)^2

.

. summ errsq
```

.

. scalar RWrmse`w'=r(mean)^.5

.

. summ nobs

.

. scalar RWminobs`w'=r(min)

.

. scalar RWmaxobs`w'=r(max)

.

. drop errsq pred nobs

.

. }

.

. scalar list

RWmaxobs180 =   153

RWminobs180 =   129

 RWrmse180 = .00865055

RWmaxobs168 =   153

RWminobs168 =   129

 RWrmse168 = .00865055

RWmaxobs156 =   153

RWminobs156 =   129

 RWrmse156 = .00865055

RWmaxobs144 =   144

RWminobs144 =   129

 RWrmse144 = .00870146

RWmaxobs132 =   132

RWminobs132 =   129

 RWrmse132 = .00865593

RWmaxobs120 =   120

RWminobs120 =   120

 RWrmse120 = .00862317

RWmaxobs108 =   108

RWminobs108 =   108

 RWrmse108 = .00942076

RWmaxobs96 =   96

RWminobs96 =   96

 RWrmse96 = .00918691

RWmaxobs84 =   84

RWminobs84 =   84

 RWrmse84 = .01000511

RWmaxobs72 =   72

RWminobs72 =   72

 RWrmse72 = .00953545

RWmaxobs60 =   60

RWminobs60 =   60

 RWrmse60 = .00956966

RWmaxobs48 =   48

RWminobs48 =   48

 RWrmse48 = .01079291

RWmaxobs36 =   36

RWminobs36 =   36

 RWrmse36 = .01362003

.

.

.

. *Rolling window program for GSREG 18 for dlnavg_WeekDolla

.

. scalar drop _all

.

. quietly forvalues w=36(12)180 {

.

. gen pred=.

.

. gen nobs=.

.

. forvalues t=696/720 {

.

. gen wstart=`t'-`w'

.

. gen wend=`t'-1

.

. reg d.lnavg_WeekDolla l(1,2)d.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_Wee
> kHour m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

.

. replace nobs=e(N) if date==`t'

.

. predict ptemp

.

. replace pred=ptemp if date==`t'

.

. drop ptemp wstart wend

.

. }

.

. gen errsq=(pred-d.lnemp1000)^2

.

. summ errsq

.

. scalar RWrmse`w'=r(mean)^.5

.

. summ nobs

.

. scalar RWminobs`w'=r(min)

.

. scalar RWmaxobs`w'=r(max)

.

. drop errsq pred nobs

.

. }

.

. scalar list

RWmaxobs180 =   153

RWminobs180 =   129

 RWrmse180 = .00984344

RWmaxobs168 =   153

RWminobs168 =   129

RWrmse168 = .00984344

RWmaxobs156 =   153

RWminobs156 =   129

 RWrmse156 = .00984344

RWmaxobs144 =   144

RWminobs144 =   129

 RWrmse144 =   .0099045

RWmaxobs132 =   132

RWminobs132 =   129

 RWrmse132 = .00987862

RWmaxobs120 =   120

RWminobs120 =   120

 RWrmse120 = .00980841

RWmaxobs108 =   108

RWminobs108 =   108

 RWrmse108 = .01026347

RWmaxobs96 =   96

RWminobs96 =   96

 RWrmse96 = .01046207

RWmaxobs84 =   84

RWminobs84 =   84

 RWrmse84 =   .0119581

RWmaxobs72 =   72

RWminobs72 =   72

 RWrmse72 = .01179911

RWmaxobs60 =   60

RWminobs60 =   60

 RWrmse60 = .01197677

RWmaxobs48 =   48

RWminobs48 =   48

  RWrmse48 = .01281748

RWmaxobs36 =   36

RWminobs36 =   36

  RWrmse36 = .01360973

.

.

.

. *Rolling window program for GSREG Rank 2 for dlnemp1000

.

. scalar drop _all

.

.

.

. gen pred=.
(375 missing values generated)

.

. gen nobs=.
(375 missing values generated)

.

. forvalues t=663/733 {
  2.

. gen wstart=`t'-96

  3.

. gen wend=`t'-1

  4.

. reg d.lnemp1000 l(1,2,3)d.lnemp1000 l(2)d.lnavg_WeekDolla ld.lnavg_WeekHour m

> 2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

  5.

. replace nobs=e(N) if date==`t'

  6.

. predict ptemp

  7.

. replace pred=ptemp if date==`t'

  8.

. drop ptemp wstart wend

  9.

. }

```
    Source |     SS        df     MS     Number of obs  =      96
-------------+---------------------------------  F(16, 79)     =    38.49
     Model | .005441261     16 .000340079  Prob > F      =   0.0000
  Residual | .000698084     79 8.8365e-06  R-squared     =   0.8863
-------------+---------------------------------  Adj R-squared =   0.8633
     Total | .006139345     95 .000064625  Root MSE      =   .00297


-------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+-----------------------------------------------------------
   lnemp1000 |
```

```
     LD. |  .4005282   .1091017    3.67   0.000    .1833668   .6176896
    L2D. |   .199781   .1135319    1.76   0.082   -.0261986   .4257606
    L3D. |  .2288405   .1092652    2.09   0.039    .0113536   .4463275
         |
lnavg_Week~a |
    L2D. |  .0108896    .018418    0.59   0.556   -.0257706   .0475498
         |
lnavg_Week~r |
     LD. | -.0500461   .0304395   -1.64   0.104   -.1106345   .0105422
         |
      m2 |  .0348094   .0026983   12.90   0.000    .0294386   .0401803
      m3 |  .0287422    .003643    7.89   0.000    .0214911   .0359933
      m4 |  .0223177   .0030418    7.34   0.000    .0162633   .0283722
      m5 |  .0210147   .0016006   13.13   0.000    .0178288   .0242006
      m6 |  .0194233    .001854   10.48   0.000    .0157331   .0231136
      m7 |  .0179183   .0016077   11.15   0.000    .0147183   .0211183
      m8 |  .0241098   .0016953   14.22   0.000    .0207354   .0274841
      m9 |  .0219193   .0019617   11.17   0.000    .0180146    .025824
     m10 |  .0284762   .0017299   16.46   0.000     .025033   .0319194
     m11 |  .0295948   .0019394   15.26   0.000    .0257346    .033455
     m12 |  .0198591   .0019652   10.11   0.000    .0159473   .0237708
    _cons | -.0222657   .0013174  -16.90   0.000    -.024888  -.0196434
-------------------------------------------------------------------------------

(1 real change made)
(option xb assumed; fitted values)
(207 missing values generated)
(1 real change made)
```

```
      Source |     SS         df      MS      Number of obs   =      96
-------------+----------------------------------   F(16, 79)     =    37.81
       Model |  .005472621      16 .000342039   Prob > F      =   0.0000
    Residual |  .000714628      79 9.0459e-06   R-squared     =   0.8845
-------------+----------------------------------   Adj R-squared =   0.8611
       Total |  .006187249      95 .000065129   Root MSE      =   .00301
```

```
--------------------------------------------------------------------------

D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
   lnemp1000 |
        LD. |  .3791162  .1103698   3.43  0.001    .1594305   .5988018
       L2D. |  .2140882  .1145408   1.87  0.065   -.0138995   .4420759
       L3D. |  .2532021  .1112523   2.28  0.026    .0317599   .4746443
            |
lnavg_Week~a |
       L2D. |  .0131126  .0185798   0.71  0.482   -.0238696   .0500948
            |
lnavg_Week~r |
        LD. | -.0571669  .0314154  -1.82  0.073   -.1196977   .0053638
            |
         m2 |  .0342954  .0027394  12.52  0.000    .0288428   .0397481
         m3 |  .0294037  .0036701   8.01  0.000    .0220985   .0367088
         m4 |  .0241027   .003115   7.74  0.000    .0179024    .030303
         m5 |  .0209253  .0016219  12.90  0.000    .0176971   .0241536
         m6 |  .0194999  .0018752  10.40  0.000    .0157674   .0232324
         m7 |  .0181155   .001625  11.15  0.000    .0148809    .02135
         m8 |  .0241878  .0017144  14.11  0.000    .0207754   .0276001
```

```
     m9 |   .0221878   .0019802   11.20   0.000    .0182462   .0261293

    m10 |    .028754   .0017477   16.45   0.000    .0252753   .0322327

    m11 |   .0299293   .0019584   15.28   0.000    .0260313   .0338274

    m12 |   .0201958   .0019873   10.16   0.000    .0162401   .0241515

   _cons |  -.0224712   .0013293  -16.90   0.000   -.0251171  -.0198253
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |      SS         df      MS       Number of obs  =       96
------------+----------------------------------   F(16, 79)      =    38.08
      Model |  .00551463      16  .000344664   Prob > F        =   0.0000
   Residual |  .000715025      79  9.0510e-06   R-squared       =   0.8852
------------+----------------------------------   Adj R-squared  =   0.8620
      Total |  .006229655      95  .000065575   Root MSE        =   .00301
```

```
 D.lnemp1000 |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
------------+-----------------------------------------------------------
   lnemp1000 |

        LD. |  .3876399   .1081138    3.59   0.001    .1724448   .6028349

       L2D. |  .2095809   .1134315    1.85   0.068   -.0161988   .4353606

       L3D. |  .2521743   .1116274    2.26   0.027    .0299854   .4743631

            |
 lnavg_Week~a |

       L2D. |  .0136332   .0187202    0.73   0.469   -.0236284   .0508949
```

```
                        |
lnavg_Week~r |
        LD. |  -.0585052   .0313931   -1.86   0.066   -.1209915    .0039811
                        |
         m2 |   .0344295   .0027245   12.64   0.000    .0290066    .0398525
         m3 |   .0292416   .0036264    8.06   0.000    .0220234    .0364598
         m4 |    .024046   .0031242    7.70   0.000    .0178275    .0302645
         m5 |     .02096    .001618   12.95   0.000    .0177396    .0241805
         m6 |   .0194595   .0018687   10.41   0.000    .0157399    .0231792
         m7 |   .0181052   .0016251   11.14   0.000    .0148706    .0213398
         m8 |   .0241976   .0017153   14.11   0.000    .0207833    .0276119
         m9 |   .0221323   .0019735   11.21   0.000    .0182041    .0260604
        m10 |   .0287317    .001748   16.44   0.000    .0252524     .032211
        m11 |   .0298588   .0019475   15.33   0.000    .0259824    .0337351
        m12 |   .0201085   .0019781   10.17   0.000    .0161711    .0240459
       _cons |  -.0224442   .0013267  -16.92   0.000   -.0250849   -.0198034
-------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS          df      MS     Number of obs  =       96
-------------+----------------------------------   F(16, 79)      =     38.37
       Model |  .005519464       16  .000344967   Prob > F       =    0.0000
    Residual |   .00071021       79  8.9900e-06   R-squared      =    0.8860
-------------+----------------------------------   Adj R-squared  =    0.8629
       Total |  .006229674       95  .000065576   Root MSE       =      .003
```

```
--------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
  lnemp1000 |
       LD. |  .3902045   .107629    3.63   0.001    .1759744   .6044346
      L2D. |  .2114452   .1108942   1.91   0.060    -.0092841   .4321745
      L3D. |   .247702   .1100445   2.25   0.027    .0286638   .4667402
            |
lnavg_Week~a |
      L2D. |  .0129672   .0186521   0.70   0.489    -.0241589   .0500933
            |
lnavg_Week~r |
       LD. |  -.0628201  .0318105   -1.97  0.052    -.1261372   .000497
            |
        m2 |  .0344847   .0026936   12.80  0.000    .0291232   .0398463
        m3 |  .0292472   .0035803    8.17  0.000    .0221209   .0363736
        m4 |  .0239427   .0030894    7.75  0.000    .0177934   .030092
        m5 |  .0209514   .0016086   13.02  0.000    .0177497   .0241532
        m6 |   .019738   .001804    10.94  0.000    .0161472   .0233287
        m7 |  .0180983   .0016177   11.19  0.000    .0148784   .0213182
        m8 |  .0242064   .0016991   14.25  0.000    .0208245   .0275883
        m9 |  .0221184   .0019562   11.31  0.000    .0182246   .0260121
       m10 |  .0286901   .0017427   16.46  0.000    .0252213   .0321589
       m11 |  .0298478   .0019372   15.41  0.000    .0259919   .0337036
       m12 |  .0200546   .0019718   10.17  0.000    .0161298   .0239794
      _cons |  -.0224278  .0013175   -17.02 0.000    -.0250502   -.0198054
--------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df     MS     Number of obs  =      96
-------------+------------------------------  F(16, 79)     =    37.98
     Model | .005473423     16 .000342089  Prob > F     =   0.0000
  Residual | .000711475     79 9.0060e-06  R-squared    =   0.8850
-------------+------------------------------  Adj R-squared =   0.8617
     Total | .006184898     95 .000065104  Root MSE     =    .003
```

```
--------------------------------------------------------------------
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------
  lnemp1000 |
       LD. |  .390544  .1079338   3.62  0.001   .175707  .6053809
      L2D. | .2102807  .1109834   1.89  0.062  -.0106262  .4311876
      L3D. | .2427857  .1093919   2.22  0.029   .0250466  .4605249
           |
lnavg_Week~a |
      L2D. | .0128845  .0187341   0.69  0.494  -.0244047  .0501738
           |
lnavg_Week~r |
       LD. | -.0614684 .0318164  -1.93  0.057  -.1247975  .0018606
           |
        m2 | .0345152  .0026958  12.80  0.000   .0291494  .0398809
        m3 |  .029196  .0035814   8.15  0.000   .0220675  .0363246
```

```
    m4 |   .0238206   .0030754    7.75   0.000    .0176992   .0299419

    m5 |   .020972    .0016092   13.03   0.000    .0177691   .024175

    m6 |   .0197413   .0018057   10.93   0.000    .0161471   .0233354

    m7 |   .0179688   .0016007   11.23   0.000    .0147828   .0211549

    m8 |   .0241835   .0016998   14.23   0.000    .0208002   .0275667

    m9 |   .0220812   .0019555   11.29   0.000    .0181888   .0259736

   m10 |   .0286397   .0017392   16.47   0.000    .0251779   .0321016

   m11 |   .0298114   .0019366   15.39   0.000    .0259567   .0336661

   m12 |   .0200223   .0019723   10.15   0.000    .0160965   .0239481

  _cons |  -.0223969   .0013161  -17.02   0.000   -.0250165  -.0197772

-------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS          df       MS       Number of obs =       96
-------------+----------------------------------   F(16, 79)     =    38.04
       Model |  .005475117       16  .000342195    Prob > F      =   0.0000
    Residual |  .000710677       79  8.9959e-06    R-squared     =   0.8851
-------------+----------------------------------   Adj R-squared =   0.8618
       Total |  .006185795       95  .000065114    Root MSE      =     .003
```

```
-------------------------------------------------------------------------------
  D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+-----------------------------------------------------------------
    lnemp1000 |

         LD. |  .3936653   .1079901    3.65   0.000    .1787163   .6086143
```

```
    L2D. |   .212908   .1110615    1.92   0.059   -.0081544   .4339704
    L3D. |  .2345635   .1088305    2.16   0.034    .0179418   .4511851
         |
lnavg_Week~a |
    L2D. |  .0131222   .0186725    0.70   0.484   -.0240444   .0502888
         |
lnavg_Week~r |
     LD. | -.0651587    .031917   -2.04   0.045   -.1286879  -.0016295
         |
      m2 |  .0346011   .0026978   12.83   0.000    .0292312    .039971
      m3 |  .0292354   .0035803    8.17   0.000    .0221089   .0363618
      m4 |    .02363   .0030653    7.71   0.000    .0175287   .0297313
      m5 |  .0209881   .0016081   13.05   0.000    .0177873   .0241888
      m6 |  .0197529   .0018046   10.95   0.000    .0161609   .0233449
      m7 |  .0179538   .0015991   11.23   0.000    .0147708   .0211368
      m8 |  .0239005   .0016843   14.19   0.000     .020548   .0272531
      m9 |  .0220629    .001953   11.30   0.000    .0181756   .0259502
     m10 |  .0285829   .0017347   16.48   0.000    .0251301   .0320357
     m11 |  .0297948   .0019348   15.40   0.000    .0259437    .033646
     m12 |  .0199501   .0019703   10.13   0.000    .0160283   .0238719
    _cons | -.0223799   .0013143  -17.03   0.000   -.0249959   -.019764
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)


```
    Source |       SS           df       MS      Number of obs   =       96
```

```
-------------+-------------------------------  F(16, 79)     =    37.92

      Model |  .005470831       16  .000341927   Prob > F     =   0.0000

   Residual |  .00071229        79  9.0163e-06   R-squared    =   0.8848

-------------+-------------------------------  Adj R-squared  =   0.8615

      Total |  .006183121       95  .000065085   Root MSE     =     .003
```

```
--------------------------------------------------------------------------

 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]

-------------+------------------------------------------------------------

    lnemp1000 |

        LD. |  .3911175  .1080998    3.62   0.001    .1759503   .6062846

       L2D. |  .2158483   .111162    1.94   0.056    -.005414   .4371106

       L3D. |  .2376616  .1087946    2.18   0.032    .0211112   .4542119

            |

 lnavg_Week~a |

       L2D. |  .0131244  .0187407    0.70   0.486   -.0241781   .0504269

            |

 lnavg_Week~r |

        LD. | -.0644626  .0319108   -2.02   0.047   -.1279795  -.0009456

            |

         m2 |  .0345618  .0027005   12.80   0.000    .0291865    .039937

         m3 |  .0293402  .0035807    8.19   0.000    .022213   .0364674

         m4 |  .0237137  .0030649    7.74   0.000    .0176131   .0298143

         m5 |  .0209879  .0016099   13.04   0.000    .0177834   .0241924

         m6 |  .0197788  .0018059   10.95   0.000    .0161843   .0233733

         m7 |  .0179823     .0016   11.24   0.000    .0147975   .0211671

         m8 |  .0239214  .0016857   14.19   0.000    .0205661   .0272767

         m9 |  .0222445  .0019188   11.59   0.000    .0184253   .0260637
```

```
    m10 |  .0286323  .001734   16.51  0.000   .0251808  .0320837

    m11 |  .0298457  .0019356  15.42  0.000    .025993  .0336984

    m12 |   .020001  .0019709  10.15  0.000   .0160781   .023924

   _cons | -.0224179  .0013139 -17.06  0.000  -.0250332 -.0198027
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |     SS         df     MS      Number of obs  =     96
-------------+----------------------------------  F(16, 79)    =   38.28
     Model |  .005555233     16 .000347202  Prob > F     =   0.0000
   Residual |  .000716455     79 9.0690e-06  R-squared    =   0.8858
-------------+----------------------------------  Adj R-squared =   0.8626
     Total |  .006271688     95 .000066018  Root MSE     =   .00301
```

```
 D.lnemp1000 |    Coef.  Std. Err.   t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
   lnemp1000 |

      LD. |  .3985566  .1081163   3.69  0.000   .1833565  .6137567

     L2D. |  .2109283  .1114271   1.89  0.062  -.0108618  .4327185

     L3D. |  .2414903  .1090914   2.21  0.030   .0243493  .4586313
          |

lnavg_Week~a |

     L2D. |  .0148262  .0188482   0.79  0.434  -.0226902  .0523426
          |
```

lnavg_Week~r |

LD.	-.067882	.0318356	-2.13	0.036	-.1312491	-.0045149
m2	.0346257	.002707	12.79	0.000	.0292375	.0400139
m3	.0292232	.0035889	8.14	0.000	.0220797	.0363666
m4	.0237862	.003074	7.74	0.000	.0176675	.0299049
m5	.0209607	.0016144	12.98	0.000	.0177473	.0241741
m6	.0197396	.0018105	10.90	0.000	.0161359	.0233434
m7	.017987	.0016047	11.21	0.000	.0147929	.0211812
m8	.0239375	.0016905	14.16	0.000	.0205726	.0273024
m9	.0222044	.0019241	11.54	0.000	.0183746	.0260341
m10	.0287903	.0017348	16.60	0.000	.0253372	.0322434
m11	.0298047	.0019407	15.36	0.000	.0259419	.0336676
m12	.0199451	.0019756	10.10	0.000	.0160128	.0238775
_cons	-.0224139	.0013177	-17.01	0.000	-.0250367	-.0197911

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
				F(16, 79)		=	38.57
Model	.005568318	16	.00034802	Prob > F		=	0.0000
Residual	.000712833	79	9.0232e-06	R-squared		=	0.8865
				Adj R-squared		=	0.8635
Total	.006281152	95	.000066117	Root MSE		=	.003

```
--------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------------
   lnemp1000 |
        LD. |  .3904669  .1074142   3.64  0.000   .1766643   .6042695
       L2D. |  .2140664  .1112415   1.92  0.058  -.0073542    .435487
       L3D. |  .2461791  .1086923   2.26  0.026   .0298325   .4625256
            |
lnavg_Week~a |
       L2D. |  .0114414  .0195428   0.59  0.560  -.0274576   .0503404
            |
lnavg_Week~r |
        LD. | -.0667505   .031726  -2.10  0.039  -.1298996  -.0036014
            |
         m2 |  .0344948  .0026842  12.85  0.000   .0291521   .0398375
         m3 |  .0292701    .00358   8.18  0.000   .0221443   .0363959
         m4 |  .0239136  .0030612   7.81  0.000   .0178203   .0300068
         m5 |  .0209295  .0016105  13.00  0.000   .0177238   .0241351
         m6 |  .0197094  .0018065  10.91  0.000   .0161136   .0233052
         m7 |  .0179884  .0016007  11.24  0.000   .0148023   .0211744
         m8 |   .023904   .001685  14.19  0.000    .02055   .0272579
         m9 |  .0222484  .0019204  11.59  0.000   .0184259   .0260709
        m10 |  .0288208  .0017308  16.65  0.000   .0253757   .0322659
        m11 |  .0295189  .0019363  15.24  0.000   .0256647   .0333731
        m12 |  .0200362  .0019689  10.18  0.000   .0161171   .0239552
       _cons | -.0224211  .0013144 -17.06  0.000  -.0250374  -.0198048
--------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(16, 79)	=	38.66
Model	.005588992	16	.000349312		Prob > F	=	0.0000
Residual	.000713738	79	9.0347e-06		R-squared	=	0.8868
					Adj R-squared	=	0.8638
Total	.00630273	95	.000066345		Root MSE	=	.00301

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	.3885107	.1074114	3.62	0.001	.1747136	.6023078
L2D.	.2182509	.110526	1.97	0.052	-.0017455	.4382474
L3D.	.2472343	.1087122	2.27	0.026	.0308482	.4636205
lnavg_Week~a						
L2D.	.0106559	.0195861	0.54	0.588	-.0283293	.0496411
lnavg_Week~r						
LD.	-.0656227	.031721	-2.07	0.042	-.1287617	-.0024837
m2	.0344938	.0026896	12.82	0.000	.0291402	.0398474
m3	.0293762	.0035689	8.23	0.000	.0222724	.03648
m4	.0239435	.0030623	7.82	0.000	.0178482	.0300388

```
    m5 |   .0209378   .0016114   12.99   0.000    .0177305   .0241451

    m6 |   .0197366   .0018059   10.93   0.000     .016142   .0233312

    m7 |   .0180129   .0015998   11.26   0.000    .0148285   .0211973

    m8 |   .0239285   .0016843   14.21   0.000     .020576    .027281

    m9 |   .0223056   .0019131   11.66   0.000    .0184976   .0261136

   m10 |   .0288619    .001727   16.71   0.000    .0254243   .0322995

   m11 |   .0295593   .0019345   15.28   0.000    .0257088   .0334098

   m12 |   .0202159   .0019316   10.47   0.000    .0163712   .0240607

  _cons | -.0224556   .0013108  -17.13   0.000   -.0250648  -.0198465
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS          df     MS      Number of obs  =      96
-------------+---------------------------------   F(16, 79)      =   37.67
     Model | .005521604        16  .0003451   Prob > F       =   0.0000
   Residual | .000723813        79 9.1622e-06   R-squared      =   0.8841
-------------+---------------------------------   Adj R-squared  =   0.8606
     Total | .006245418        95 .000065741   Root MSE       =   .00303
```

```
D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
   lnemp1000 |

        LD. |  .3822229   .1080187   3.54  0.001    .1672171   .5972287

       L2D. |   .224363   .1113317   2.02  0.047    .0027627   .4459633
```

L3D.	.2380901	.109225	2.18	0.032	.0206832	.455497
lnavg_Week~a						
L2D.	.0071803	.019797	0.36	0.718	-.0322246	.0465852
lnavg_Week~r						
LD.	-.062685	.0320818	-1.95	0.054	-.1265423	.0011723
m2	.0348534	.0027072	12.87	0.000	.0294648	.0402421
m3	.0298121	.0035708	8.35	0.000	.0227047	.0369195
m4	.0240971	.0031129	7.74	0.000	.017901	.0302932
m5	.0213327	.001603	13.31	0.000	.0181421	.0245234
m6	.0201176	.0017942	11.21	0.000	.0165463	.0236888
m7	.0183431	.0016095	11.40	0.000	.0151394	.0215468
m8	.0242609	.0016906	14.35	0.000	.0208957	.027626
m9	.0226899	.0019116	11.87	0.000	.0188849	.0264949
m10	.0291738	.0017399	16.77	0.000	.0257106	.032637
m11	.0299124	.0019366	15.45	0.000	.0260578	.0337671
m12	.0205947	.0019394	10.62	0.000	.0167343	.024455
_cons	-.0227905	.0013124	-17.37	0.000	-.0254027	-.0201783

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS	Number of obs	=	96
-------------+--------------------------------				F(16, 79)	=	37.81

```
     Model |  .005534208      16  .000345888  Prob > F      =   0.0000

   Residual |  .00072266       79  9.1476e-06  R-squared     =   0.8845

-------------+-------------------------------   Adj R-squared  =   0.8611

     Total |  .006256868      95  .000065862  Root MSE      =   .00302
```

```
-------------------------------------------------------------------------------

 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|    [95% Conf. Interval]

-------------+-----------------------------------------------------------------

  lnemp1000 |

      LD. |  .3802429  .1074686   3.54  0.001   .1663321   .5941538

     L2D. |   .230476  .1111071   2.07  0.041   .0093229    .451629

     L3D. |  .2356376  .1093466   2.15  0.034   .0179886   .4532866

          |

lnavg_Week~a |

     L2D. |   .005131  .0194344   0.26  0.792  -.0335521   .0438142

          |

lnavg_Week~r |

      LD. | -.0630455  .0320478  -1.97  0.053   -.126835    .000744

          |

       m2 |  .0348131  .0027063  12.86  0.000   .0294263   .0401999

       m3 |   .029924  .0035635   8.40  0.000   .0228311   .0370169

       m4 |   .024045  .0031133   7.72  0.000   .0178481   .0302419

       m5 |  .0213394  .0016018  13.32  0.000   .0181512   .0245277

       m6 |  .0201324  .0017929  11.23  0.000   .0165636   .0237011

       m7 |  .0183533  .0016077  11.42  0.000   .0151533   .0215534

       m8 |  .0242792  .0016896  14.37  0.000   .0209161   .0276423

       m9 |  .0227446  .0019059  11.93  0.000   .0189509   .0265382

      m10 |  .0291826  .0017362  16.81  0.000   .0257268   .0326384
```

```
     m11 |  .0299389  .0019326   15.49  0.000   .0260921  .0337857

     m12 |  .0206099  .0019336   10.66  0.000   .0167612  .0244586

    _cons | -.0228096  .0013097  -17.42  0.000  -.0254166  -.0202026
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df      MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)    =    38.78
     Model | .005569175      16 .000348073   Prob > F     =   0.0000
  Residual | .000709068      79 8.9755e-06   R-squared    =   0.8871
-------------+----------------------------------   Adj R-squared =   0.8642
     Total | .006278243      95 .000066087   Root MSE     =    .003
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------------
   lnemp1000 |
         LD. |  .3830662  .1064568   3.60  0.001   .1711693  .5949632
        L2D. |  .2327628  .1098943   2.12  0.037   .0140236  .4515019
        L3D. |  .2285476  .1080849   2.11  0.038    .01341   .4436852
             |
lnavg_Week~a |
        L2D. | -.0004849  .0193231  -0.03  0.980  -.0389466  .0379767
             |
lnavg_Week~r |
```

```
 LD. | -.0642715  .0317426  -2.02  0.046  -.1274535  -.0010894

     |

  m2 |  .034919   .0026819  13.02  0.000   .0295808   .0402572

  m3 |  .0300486  .0035277   8.52  0.000   .0230269   .0370703

  m4 |  .0238502  .0030803   7.74  0.000    .017719   .0299814

  m5 |  .0213294  .0015867  13.44  0.000   .0181713   .0244876

  m6 |  .0200526   .001777   11.28  0.000   .0165155   .0235897

  m7 |  .0183032  .0015926  11.49  0.000   .0151332   .0214732

  m8 |  .0242494  .0016737  14.49  0.000    .020918   .0275809

  m9 |  .0227223   .001888   12.04  0.000   .0189644   .0264802

 m10 |  .0291052  .0017196  16.93  0.000   .0256825   .0325279

 m11 |  .0298445  .0019156  15.58  0.000   .0260316   .0336575

 m12 |  .0205456  .0019158  10.72  0.000   .0167323   .0243589

_cons | -.0227498  .0012978 -17.53  0.000   -.025333  -.0201667
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
  Source |    SS       df     MS      Number of obs  =     96
---------+--------------------------------  F(16, 79)    =   46.86
   Model | .005554722    16  .00034717  Prob > F      =   0.0000
Residual | .000585256    79  7.4083e-06  R-squared     =   0.9047
---------+--------------------------------  Adj R-squared =   0.8854
   Total | .006139978    95  .000064631  Root MSE      =   .00272
```

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	.3089018	.0978955	3.16	0.002	.1140457	.5037579
L2D.	.2831999	.0998802	2.84	0.006	.0843933	.4820065
L3D.	.2443725	.0982715	2.49	0.015	.048768	.439977
lnavg_Week~a						
L2D.	.0035524	.0175555	0.20	0.840	-.0313908	.0384957
lnavg_Week~r						
LD.	-.0472302	.0290159	-1.63	0.108	-.1049848	.0105245
m2	.033718	.0024503	13.76	0.000	.0288408	.0385951
m3	.0319393	.003217	9.93	0.000	.0255359	.0383426
m4	.0263042	.0028212	9.32	0.000	.0206888	.0319196
m5	.0213938	.0014416	14.84	0.000	.0185244	.0242631
m6	.0205867	.0016181	12.72	0.000	.0173659	.0238075
m7	.0185448	.0014473	12.81	0.000	.0156641	.0214255
m8	.0243123	.0015202	15.99	0.000	.0212865	.0273381
m9	.0233406	.0017172	13.59	0.000	.0199226	.0267585
m10	.0295346	.0015649	18.87	0.000	.0264197	.0326494
m11	.0306436	.0017456	17.55	0.000	.027169	.0341182
m12	.0213205	.0017479	12.20	0.000	.0178413	.0247996
_cons	-.0231398	.0011806	-19.60	0.000	-.0254897	-.0207899

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df     MS      Number of obs  =      96
-------------+----------------------------------  F(16, 79)     =    46.91
     Model | .005543354      16  .00034646  Prob > F      =   0.0000
  Residual | .000583473      79  7.3857e-06  R-squared     =   0.9048
-------------+----------------------------------  Adj R-squared =   0.8855
     Total | .006126827      95  .000064493  Root MSE      =   .00272
```

```
--------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
   lnemp1000 |
        LD. |  .2761596   .1056714   2.61   0.011    .0658259   .4864933
       L2D. |    .29023   .0991077   2.93   0.004    .0929611    .487499
       L3D. |  .2596094   .1013742   2.56   0.012    .0578292   .4613897
            |
 lnavg_Week~a |
       L2D. |  .0053322    .017749   0.30   0.765   -.0299963   .0406607
            |
 lnavg_Week~r |
        LD. | -.0490183   .0290413  -1.69   0.095   -.1068234   .0087869
            |
         m2 |  .0330158   .0026229  12.59   0.000    .0277951   .0382365
         m3 |  .0324126   .0032258  10.05   0.000    .0259919   .0388333
         m4 |  .0268247    .002932   9.15   0.000    .0209888   .0326606
         m5 |  .0214428   .0014328  14.97   0.000    .0185909   .0242947
```

```
   m6 |  .0206585  .0016138   12.80  0.000   .0174463   .0238707
   m7 |  .0185999  .0014462   12.86  0.000   .0157213   .0214785
   m8 |  .0242363   .001523   15.91  0.000   .0212048   .0272678
   m9 |   .023457   .001715   13.68  0.000   .0200434   .0268707
  m10 |  .0296407  .0015694   18.89  0.000   .0265169   .0327644
  m11 |  .0309212  .0017703   17.47  0.000   .0273975   .0344449
  m12 |   .021656  .0017997   12.03  0.000   .0180738   .0252382
 _cons | -.0232236  .0011813  -19.66  0.000   -.025575  -.0208722
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |    SS       df     MS       Number of obs =      96
----------+----------------------------   F(16, 79)    =   46.67
    Model | .005508007   16  .00034425   Prob > F     =  0.0000
 Residual | .000582667   79  7.3755e-06  R-squared    =  0.9043
----------+----------------------------   Adj R-squared =  0.8850
    Total | .006090674   95  .000064112  Root MSE     =  .00272
```

```
 D.lnemp1000 |   Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+---------------------------------------------------------
   lnemp1000 |
         LD. | .2778988  .1054854   2.63  0.010   .0679354   .4878622
        L2D. | .3057712  .1044597   2.93  0.004   .0978494   .5136929
        L3D. | .2509555  .1028019   2.44  0.017   .0463334   .4555777
```

```
                |
lnavg_Week~a |
      L2D. |  .0075517  .0181001    0.42  0.678   -.0284757    .043579
                |
lnavg_Week~r |
       LD. |  -.0528681  .0290476   -1.82  0.073   -.1106858   .0049496
                |
         m2 |   .0331602  .0026318   12.60  0.000    .0279217   .0383986
         m3 |   .0328687  .0033645    9.77  0.000    .0261718   .0395657
         m4 |    .026649  .0029509    9.03  0.000    .0207753   .0325226
         m5 |    .021522   .001441   14.94  0.000    .0186538   .0243901
         m6 |   .0203846  .0015453   13.19  0.000    .0173087   .0234605
         m7 |   .0186853  .0014549   12.84  0.000    .0157894   .0215812
         m8 |   .0243803  .0015469   15.76  0.000    .0213014   .0274592
         m9 |   .0236146  .0017464   13.52  0.000    .0201386   .0270907
        m10 |   .0296971  .0015732   18.88  0.000    .0265657   .0328285
        m11 |   .0310647  .0017942   17.31  0.000    .0274935   .0346359
        m12 |   .0216448   .001798   12.04  0.000     .018066   .0252235
       _cons |  -.0233399  .0012039  -19.39  0.000   -.0257361  -.0209437
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df     MS     Number of obs  =      96
-------------+----------------------------------  F(16, 79)     =    44.59
      Model |  .005417236      16 .000338577  Prob > F      =    0.0000
```

```
    Residual |  .000599851      79  7.5931e-06   R-squared    =   0.9003
-------------+----------------------------------  Adj R-squared  =   0.8801
       Total |  .006017087      95  .000063338   Root MSE      =   .00276
```

```
-----------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+---------------------------------------------------------------
    lnemp1000 |
       LD. |  .2470978  .1068935    2.31  0.023   .0343316   .459864
      L2D. |  .2941961  .1060889    2.77  0.007   .0830314   .5053608
      L3D. |  .3201638  .1081282    2.96  0.004   .1049399   .5353876
           |
 lnavg_Week~a |
      L2D. |  .0043911  .0185666    0.24  0.814  -.0325647   .041347
           |
 lnavg_Week~r |
       LD. | -.0628619  .0297454   -2.11  0.038  -.1220687  -.0036552
           |
        m2 |  .0321649  .0026761   12.02  0.000   .0268382   .0374916
        m3 |  .032897   .0034138    9.64  0.000   .026102    .0396921
        m4 |  .0284252  .0030713    9.26  0.000   .0223119   .0345385
        m5 |  .0212887  .0014667   14.51  0.000   .0183693   .0242081
        m6 |  .0202009  .0015712   12.86  0.000   .0170736   .0233283
        m7 |  .0190189  .0014623   13.01  0.000   .0161082   .0219295
        m8 |  .0242912  .0015692   15.48  0.000   .0211679   .0274145
        m9 |  .0237786  .0017737   13.41  0.000   .0202482   .0273091
       m10 |  .0301007  .0016065   18.74  0.000   .026903    .0332984
       m11 |  .0313898  .0018219   17.23  0.000   .0277635   .0350162
```

P a g e | 132

```
    m12 |  .0222283   .0018329   12.13   0.000    .0185799   .0258767
   _cons | -.0235233   .0012242  -19.22   0.000    -.02596   -.0210867
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df      MS      Number of obs  =      96
-------------+---------------------------------  F(16, 79)      =    44.46
     Model |  .005384125      16  .000336508  Prob > F       =   0.0000
  Residual |  .000597996      79  7.5696e-06   R-squared      =   0.9000
-------------+---------------------------------  Adj R-squared  =   0.8798
     Total |  .005982121      95  .00006297   Root MSE       =   .00275
```

```
 D.lnemp1000 |     Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |
        LD. |  .238238   .1027821    2.32   0.023    .0336553   .4428206
       L2D. |  .2967213  .1050746    2.82   0.006    .0875756   .505867
       L3D. |  .3168254  .1081033    2.93   0.004    .1016511   .5319997
            |
lnavg_Week~a |
       L2D. |  .0064378  .018825     0.34   0.733   -.0310325   .0439081
            |
lnavg_Week~r |
        LD. | -.0639087  .0297743   -2.15   0.035   -.1231729  -.0046446
```

```
        |
   m2 |  .0319981   .0026181   12.22  0.000    .026787   .0372092
   m3 |  .0330587   .0033608    9.84  0.000   .0263693   .0397481
   m4 |  .0283995   .0030561    9.29  0.000   .0223165   .0344825
   m5 |  .0213273    .001465   14.56  0.000   .0184114   .0242433
   m6 |  .0202483   .0015656   12.93  0.000    .017132   .0233645
   m7 |  .0190215   .0014591   13.04  0.000   .0161172   .0219258
   m8 |   .024365   .0015602   15.62  0.000   .0212595   .0274705
   m9 |  .0237803   .0017648   13.47  0.000   .0202675   .0272931
  m10 |  .0300722   .0016036   18.75  0.000   .0268803   .0332641
  m11 |  .0314562   .0017995   17.48  0.000   .0278743   .0350381
  m12 |  .0222767   .0018081   12.32  0.000   .0186776   .0258757
 _cons | -.0235234   .0012191  -19.30  0.000  -.0259499  -.0210969
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |     SS        df     MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)     =    45.33
    Model |  .005319126     16  .000332445   Prob > F      =   0.0000
  Residual |   .00057937     79  7.3338e-06   R-squared     =   0.9018
-------------+----------------------------------   Adj R-squared  =   0.8819
    Total |  .005898496     95  .000062089   Root MSE      =    .00271
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
```

```
-------------+----------------------------------------------------------------
  lnemp1000 |
        LD. |  .2255084   .1010639    2.23   0.028    .0243458    .4266711
       L2D. |  .3274827   .0997888    3.28   0.002    .1288581    .5261074
       L3D. |  .2814088   .1058327    2.66   0.009     .070754    .4920635
            |
lnavg_Week~a |
       L2D. |  .0085076   .0185619    0.46   0.648   -.0284389    .0454542
            |
lnavg_Week~r |
        LD. | -.0735131   .0295884   -2.48   0.015   -.1324073   -.0146189
            |
         m2 |  .0320052   .0025753   12.43   0.000    .0268792    .0371313
         m3 |   .033945   .0032352   10.49   0.000    .0275054    .0403845
         m4 |  .0276664   .0029981    9.23   0.000    .0216988     .033634
         m5 |  .0215088   .0014399   14.94   0.000    .0186426    .0243749
         m6 |  .0204764   .0015332   13.36   0.000    .0174247    .0235281
         m7 |  .0190744   .0014334   13.31   0.000    .0162213    .0219276
         m8 |  .0245122   .0015287   16.03   0.000    .0214694    .0275549
         m9 |  .0249604   .0016679   14.97   0.000    .0216406    .0282803
        m10 |  .0299403   .0015806   18.94   0.000    .0267942    .0330865
        m11 |  .0316735   .0017615   17.98   0.000    .0281674    .0351797
        m12 |  .0222413   .0017798   12.50   0.000    .0186987     .025784
       _cons | -.023592   .0011931  -19.77   0.000   -.0259669   -.0212172
-------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |    SS        df      MS     Number of obs  =      96
-------------+--------------------------------  F(16, 79)    =    45.95
     Model |  .00530675      16 .000331672  Prob > F     =   0.0000
  Residual |  .000570277     79 7.2187e-06  R-squared    =   0.9030
-------------+--------------------------------  Adj R-squared =   0.8833
     Total |  .005877027     95 .000061863  Root MSE     =   .00269
```

```
--------------------------------------------------------------------------
 D.lnemp1000 |    Coef.  Std. Err.   t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------------
  lnemp1000 |
       LD. |  .1825473   .101838    1.79  0.077   -.0201562   .3852507
      L2D. |  .3418772   .0980835   3.49  0.001    .1466468   .5371076
      L3D. |  .2669291   .1035611   2.58  0.012    .0607959   .4730623
            |
lnavg_Week~a |
      L2D. |  .0086722   .0184076   0.47  0.639   -.0279671   .0453115
            |
lnavg_Week~r |
       LD. | -.0673795   .0295906  -2.28  0.025   -.1262782   -.0084809
            |
        m2 |  .0312809   .0025886  12.08  0.000    .0261284   .0364334
        m3 |  .034519    .003188   10.83  0.000    .0281734   .0408646
        m4 |  .0274919   .0029555   9.30  0.000    .0216091   .0333746
        m5 |  .0216071   .0014258  15.15  0.000    .018769    .0244452
        m6 |  .0206223   .0015169  13.59  0.000    .017603    .0236417
```

```
   m7 |   .0190556   .0014222   13.40   0.000    .0162247   .0218865
   m8 |   .0243833   .0015198   16.04   0.000    .0213583   .0274084
   m9 |   .0249968   .0016539   15.11   0.000    .0217049   .0282887
  m10 |    .029985    .001555   19.28   0.000    .0268897   .0330802
  m11 |   .0318562   .0017468   18.24   0.000    .0283793   .0353331
  m12 |   .0224861   .0017725   12.69   0.000     .018958   .0260142
 _cons | -.0235342   .0011844  -19.87   0.000   -.0258916  -.0211768
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS         df      MS     Number of obs  =     96
-------------+--------------------------------   F(16, 79)     =   49.79
    Model |  .005403078      16 .000337692   Prob > F      =   0.0000
  Residual |   .00053577      79 6.7819e-06   R-squared     =   0.9098
-------------+--------------------------------   Adj R-squared =   0.8915
    Total |  .005938849      95 .000062514   Root MSE      =    .0026
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
  lnemp1000 |
       LD. |   .1315002   .1012145    1.30   0.198   -.0699622   .3329625
      L2D. |   .3064205   .0941231    3.26   0.002    .1190732   .4937678
      L3D. |   .3020101   .1012094    2.98   0.004    .1005579   .5034623
           |
```

lnavg_Week~a |

    L2D. | .0086511 .0178363   0.49 0.629   -.0268512   .0441535

       |

lnavg_Week~r |

    LD. | -.0492642 .0293273   -1.68 0.097   -.1076388   .0091104

       |

     m2 | .0299479 .0025768 11.62 0.000   .024819   .0350769

     m3 | .033882 .0030471 11.12 0.000   .0278169   .039947

     m4 | .0284627 .0028925   9.84 0.000   .0227054   .03422

     m5 | .0214716 .0013814 15.54 0.000   .0187221   .0242212

     m6 | .0204532 .0014666 13.95 0.000   .0175339   .0233725

     m7 | .0188899   .001378 13.71 0.000   .016147 .0216327

     m8 | .0238995 .0014811 16.14 0.000   .0209515   .0268475

     m9 | .0246954 .0015967 15.47 0.000   .0215172   .0278735

    m10 | .030004   .001506 19.92 0.000   .0270065   .0330016

    m11 | .0324731   .001659 19.57 0.000   .0291708   .0357753

    m12 | .02293 .0017289 13.26 0.000   .0194887   .0263713

  _cons | -.0232787 .0011456 -20.32 0.000   -.0255589 -.0209984

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

    Source | SS   df   MS   Number of obs =   96

-------------+---------------------------------- F(16, 79)   =   50.00

    Model | .005394147   16 .000337134 Prob > F   =   0.0000

  Residual | .000532724   79 6.7433e-06 R-squared   =   0.9101

```
-------------+------------------------------  Adj R-squared  =   0.8919

    Total |  .005926872      95  .000062388  Root MSE    =    .0026
```

```
------------------------------------------------------------------------

 D.lnemp1000 |   Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]

-------------+----------------------------------------------------------

  lnemp1000 |

      LD. |  .1469987  .1033531   1.42  0.159   -.0587205  .3527179

     L2D. |  .3120298  .0934644   3.34  0.001    .1259936  .498066

     L3D. |  .3001038  .0991391   3.03  0.003    .1027724  .4974351
           |

lnavg_Week~a |

     L2D. |  .0085037  .0177819   0.48  0.634   -.0268904  .0438977
           |

lnavg_Week~r |

      LD. | -.0460557  .0295204  -1.56  0.123   -.1048146  .0127032
           |

       m2 |  .0303302  .0026192  11.58  0.000    .0251169  .0355435

       m3 |  .0339288  .0030287  11.20  0.000    .0279004  .0399572

       m4 |  .0283515  .0028517   9.94  0.000    .0226752  .0340277

       m5 |  .0214866  .0013755  15.62  0.000    .0187487  .0242244

       m6 |  .0204875  .0014609  14.02  0.000    .0175797  .0233953

       m7 |  .0189557  .0013773  13.76  0.000    .0162143  .0216972

       m8 |  .024011   .0014834  16.19  0.000    .0210584  .0269637

       m9 |  .0247636  .0015946  15.53  0.000    .0215897  .0279376

      m10 |  .0300693  .0015036  20.00  0.000    .0270765  .033062

      m11 |  .032441   .001655   19.60  0.000    .0291468  .0357352

      m12 |  .0225821  .0017403  12.98  0.000    .0191182  .0260461
```

```
   _cons |  -.0233546   .0011477   -20.35   0.000    -.0256391   -.0210701
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS          df     MS     Number of obs  =      96
-------------+----------------------------   F(16, 79)     =    42.15
    Model |  .004714436      16 .000294652  Prob > F      =   0.0000
 Residual |  .000552234      79 6.9903e-06  R-squared     =   0.8951
-------------+----------------------------   Adj R-squared =   0.8739
    Total |  .00526667       95 .000055439  Root MSE      =   .00264
```

```
D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------
 lnemp1000 |
      LD. |  .1660075  .1063292   1.56  0.122   -.0456354   .3776504
     L2D. |  .2901993  .0983406   2.95  0.004    .0944572   .4859414
     L3D. |  .2797176  .1025271   2.73  0.008    .0756424   .4837927
           |
lnavg_Week~a |
     L2D. |  .0040936  .0179121   0.23  0.820   -.0315596   .0397468
           |
lnavg_Week~r |
      LD. | -.0447788  .0302442  -1.48  0.143   -.1049784   .0154208
           |
```

```
    m2 |  .0296318   .0026606   11.14  0.000    .024336    .0349275

    m3 |  .0320096   .0032719    9.78  0.000    .025497    .0385222

    m4 |  .0266932   .0030085    8.87  0.000   .0207049    .0326815

    m5 |  .0203903   .0014119   14.44  0.000     .01758    .0232007

    m6 |  .0192678   .0015367   12.54  0.000   .0162091    .0223266

    m7 |  .0177354   .0014683   12.08  0.000    .014813    .0206579

    m8 |  .0227734   .0015659   14.54  0.000   .0196566    .0258902

    m9 |  .0233653   .0017459   13.38  0.000   .0198901    .0268404

   m10 |   .028708   .0016546   17.35  0.000   .0254145    .0320014

   m11 |  .0309997     .00179   17.32  0.000   .0274368    .0345625

   m12 |  .0212341   .0018471   11.50  0.000   .0175576    .0249106

  _cons | -.0220136    .001295  -17.00  0.000  -.0245912   -.0194361
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS        df     MS     Number of obs  =      96
-------------+----------------------------------  F(16, 79)    =    44.69
    Model |  .004765466    16  .000297842  Prob > F      =   0.0000
  Residual |    .0005265    79  6.6646e-06  R-squared     =   0.9005
-------------+----------------------------------  Adj R-squared  =   0.8804
    Total |  .005291966    95  .000055705  Root MSE      =    .00258
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
```

lnemp1000 |

    LD. | .1404707 .1033026   1.36 0.178   -.0651479   .3460893

    L2D. | .3184837 .0968318   3.29 0.002   .1257449   .5112226

    L3D. | .2137933 .1054236   2.03 0.046   .0039528   .4236337

       |

lnavg_Week~a |

    L2D. | .0024973 .0174773   0.14 0.887   -.0322904   .0372849

       |

lnavg_Week~r |

    LD. | -.0661031 .0309718 -2.13 0.036   -.1277509 -.0044553

       |

    m2 | .0299582 .0025396 11.80 0.000   .0249033   .0350131

    m3 | .03265 .0031984 10.21 0.000   .0262838   .0390162

    m4 | .0251753 .0030366   8.29 0.000   .0191311   .0312195

    m5 | .0204897 .0013795 14.85 0.000   .0177439   .0232354

    m6 | .0193309 .0015005 12.88 0.000   .0163441   .0223176

    m7 | .0174996 .0014381 12.17 0.000   .0146371   .0203622

    m8 | .0226291 .0015302 14.79 0.000   .0195833   .0256748

    m9 | .0232287 .0017061 13.62 0.000   .0198329   .0266246

   m10 | .0281476 .0016394 17.17 0.000   .0248845   .0314108

   m11 | .0309262 .0017458 17.71 0.000   .0274513   .0344011

   m12 | .0211523 .0018002 11.75 0.000   .017569   .0247355

  _cons | -.0217259 .0012727 -17.07 0.000   -.024259 -.0191927

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |      SS         df      MS      Number of obs  =      96
------------+----------------------------------   F(16, 79)     =    44.39
      Model |  .004743287     16  .000296455   Prob > F       =    0.0000
   Residual |  .000527628     79  6.6788e-06   R-squared      =    0.8999
------------+----------------------------------   Adj R-squared  =    0.8796
      Total |  .005270914     95  .000055483   Root MSE       =    .00258
```

```
--------------------------------------------------------------------------
D.lnemp1000 |    Coef.  Std. Err.    t    P>|t|    [95% Conf. Interval]
------------+-------------------------------------------------------------
  lnemp1000 |
        LD. |  .1021222  .1075546   0.95  0.345  -.1119598   .3162042
       L2D. |  .2611749  .0976134   2.68  0.009   .0668803   .4554696
       L3D. |  .2556755  .1074496   2.38  0.020   .0418025   .4695485
            |
lnavg_Week~a |
       L2D. | -.0102764  .0177975  -0.58  0.565  -.0457015   .0251487
            |
lnavg_Week~r |
        LD. | -.0591833  .0313179  -1.89  0.062    -.12152   .0031534
            |
         m2 |  .0287071  .0026596  10.79  0.000   .0234133   .0340009
         m3 |  .0311861  .0030881  10.10  0.000   .0250394   .0373327
         m4 |   .026166  .0030904   8.47  0.000   .0200148   .0323172
         m5 |  .0201182  .0013842  14.53  0.000   .0173631   .0228734
         m6 |   .018806   .001504  12.50  0.000   .0158125   .0217996
         m7 |  .0171014  .0014435  11.85  0.000   .0142282   .0199746
```

```
     m8 |  .0218934   .0015591   14.04   0.000    .0187901   .0249967

     m9 |  .0226444   .0017094   13.25   0.000     .019242   .0260468

    m10 |  .0279313   .0016387   17.04   0.000    .0246695   .0311931

    m11 |  .0306364   .0017385   17.62   0.000     .027176   .0340969

    m12 |  .0214899    .001823   11.79   0.000    .0178613   .0251186

   _cons | -.0212263   .0012794  -16.59   0.000   -.0237729  -.0186798
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |       SS         df       MS      Number of obs  =      96
------------+----------------------------------   F(16, 79)     =   44.70
      Model |  .004676535       16  .000292283   Prob > F       =  0.0000
   Residual |   .00051659       79  6.5391e-06   R-squared      =  0.9005
------------+----------------------------------   Adj R-squared =  0.8804
      Total |  .005193125       95  .000054664   Root MSE       =  .00256
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------
   lnemp1000 |
        LD. |  .0999566   .1053339   0.95   0.346   -.1097052   .3096185

        L2D. |  .2423703   .0975932   2.48   0.015    .0481159   .4366247

        L3D. |  .2146285   .1046232   2.05   0.044    .0063812   .4228757
            |
 lnavg_Week~a |
```

```
L2D. | -.0052033   .0177942   -0.29   0.771   -.0406218   .0302152
     |
lnavg_Week~r |
LD. | -.0614429   .0310261   -1.98   0.051   -.1231989   .000313
     |
  m2 |  .0286439   .002602    11.01   0.000   .0234649   .033823
  m3 |  .0305983   .003075     9.95   0.000   .0244777   .0367188
  m4 |  .0253882   .0029068    8.73   0.000   .0196025   .031174
  m5 |  .0201137   .0013686   14.70   0.000   .0173895   .0228379
  m6 |  .0186772   .0014913   12.52   0.000   .0157088   .0216457
  m7 |  .0167977   .0014419   11.65   0.000   .0139277   .0196676
  m8 |  .021571    .001561    13.82   0.000   .018464    .024678
  m9 |  .0221442   .0017172   12.90   0.000   .0187263   .0255622
 m10 |  .0273648   .0016442   16.64   0.000   .0240921   .0306375
 m11 |  .0302753   .0017216   17.59   0.000   .0268485   .033702
 m12 |  .0211813   .0017852   11.87   0.000   .017628    .0247346
_cons | -.0207553  .0012965  -16.01   0.000   -.0233359  -.0181747
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS        df      MS     Number of obs  =      96
-------------+----------------------------------   F(16, 79)     =    44.48
    Model |  .004652143     16  .000290759   Prob > F     =    0.0000
  Residual |  .000516445     79  6.5373e-06   R-squared    =    0.9001
-------------+----------------------------------   Adj R-squared =    0.8798
```

```
   Total |  .005168588      95  .000054406   Root MSE      =    .00256
```

```
------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |
         LD. |  .0927941   .1069264    0.87   0.388   -.1200376    .3056259
        L2D. |   .234667   .0980897    2.39   0.019    .0394243    .4299096
        L3D. |  .2117193   .1054212    2.01   0.048    .0018837    .4215549
             |
 lnavg_Week~a |
        L2D. | -.0055825   .0178033   -0.31   0.755   -.0410191     .029854
             |
 lnavg_Week~r |
         LD. | -.0616462   .0310518   -1.99   0.051   -.1234532    .0001608
             |
          m2 |  .0284575   .0026316   10.81   0.000    .0232193    .0336956
          m3 |  .0304163    .003084    9.86   0.000    .0242778    .0365548
          m4 |  .0253365    .002917    8.69   0.000    .0195303    .0311427
          m5 |  .0202958     .00137   14.81   0.000     .017569    .0230226
          m6 |  .0186095   .0014967   12.43   0.000    .0156304    .0215885
          m7 |  .0167046   .0014605   11.44   0.000    .0137976    .0196116
          m8 |  .0214378   .0015895   13.49   0.000     .018274    .0246015
          m9 |  .0220096   .0017444   12.62   0.000    .0185375    .0254818
         m10 |  .0272471   .0016776   16.24   0.000    .0239079    .0305863
         m11 |  .0302057   .0017289   17.47   0.000    .0267644     .033647
         m12 |   .021189   .0017848   11.87   0.000    .0176365    .0247414
        _cons | -.020627   .0013345  -15.46   0.000   -.0232832   -.0179709
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(16, 79)	=	44.20
Model	.004570313	16	.000285645		Prob > F	=	0.0000
Residual	.000510546	79	6.4626e-06		R-squared	=	0.8995
					Adj R-squared	=	0.8792
Total	.005080859	95	.000053483		Root MSE	=	.00254

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	.0875825	.1064438	0.82	0.413	-.1242887	.2994537
L2D.	.2071616	.1001606	2.07	0.042	.007797	.4065262
L3D.	.1851695	.1050619	1.76	0.082	-.0239511	.39429
lnavg_Week~a						
L2D.	-.0062986	.0176017	-0.36	0.721	-.0413339	.0287367
lnavg_Week~r						
LD.	-.0618083	.0308652	-2.00	0.049	-.123244	-.0003726
m2	.0282555	.0026251	10.76	0.000	.0230304	.0334805

```
     m3 |  .0295918  .0031356   9.44  0.000   .0233507    .035833
     m4 |  .0246935  .0029059   8.50  0.000   .0189096   .0304775
     m5 |  .0202677  .0013623  14.88  0.000   .0175561   .0229794
     m6 |  .0190249  .0014572  13.06  0.000   .0161243   .0219255
     m7 |  .0163688  .0014757  11.09  0.000   .0134315   .0193061
     m8 |  .0210206  .0016191  12.98  0.000   .0177978   .0242434
     m9 |  .0214687  .0017816  12.05  0.000   .0179225    .025015
    m10 |  .0267284  .0017052  15.67  0.000   .0233343   .0301226
    m11 |  .0298023  .0017431  17.10  0.000   .0263328   .0332718
    m12 |  .0209668  .0017734  11.82  0.000    .017437   .0244966
   _cons | -.0201287  .0013795 -14.59  0.000  -.0228744  -.0173829
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df     MS     Number of obs =      96
-------------+----------------------------------  F(16, 79)    =    44.66
     Model |  .00445174     16  .000278234  Prob > F     =   0.0000
   Residual |   .0004922     79  6.2304e-06  R-squared    =   0.9004
-------------+----------------------------------  Adj R-squared =    0.8803
     Total |  .00494394     95  .000052041  Root MSE     =    .0025
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
   lnemp1000 |
```

```
    LD. |   .0479267   .1063557    0.45   0.653   -.1637689    .2596224
   L2D. |   .1905003   .0987914    1.93   0.057   -.0061392    .3871397
   L3D. |   .1514924   .1047387    1.45   0.152   -.0569848    .3599697
        |
lnavg_Week~a |
   L2D. |   -.005058   .0171503   -0.29   0.769   -.0391948    .0290788
        |
lnavg_Week~r |
    LD. |  -.0559681   .0304909   -1.84   0.070   -.1166587    .0047225
        |
     m2 |    .027491   .0026046   10.55   0.000    .0223066    .0326754
     m3 |   .0292757   .0030842    9.49   0.000    .0231368    .0354147
     m4 |   .0240616   .0028745    8.37   0.000      .01834    .0297832
     m5 |   .0203489    .001338   15.21   0.000    .0176857    .0230122
     m6 |   .0189932   .0014309   13.27   0.000     .016145    .0218414
     m7 |   .0164348   .0014274   11.51   0.000    .0135937    .0192759
     m8 |    .02052   .0016131   12.72   0.000    .0173093    .0237308
     m9 |   .0209771   .0017701   11.85   0.000    .0174539    .0245003
    m10 |   .0262215   .0016966   15.46   0.000    .0228445    .0295985
    m11 |   .0296265   .0017145   17.28   0.000    .0262138    .0330392
    m12 |    .021005    .001741   12.06   0.000    .0175395    .0244704
   _cons |  -.0196125   .0013835  -14.18   0.000   -.0223663   -.0168587
--------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS         df       MS        Number of obs   =      96
-------------+----------------------------------     F(16, 79)      =     44.16
       Model | .004426007        16  .000276625     Prob > F        =    0.0000
    Residual | .000494855        79  6.2640e-06     R-squared       =    0.8994
-------------+----------------------------------     Adj R-squared  =    0.8791
       Total | .004920861        95  .000051799     Root MSE        =     .0025
```

```
------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |
         LD. |  .0302436  .1097832    0.28   0.784   -.1882745   .2487617
        L2D. |  .1862445  .1014908    1.84   0.070   -.0157679   .3882569
        L3D. |  .1535607  .1050634    1.46   0.148   -.0555627   .3626842
             |
lnavg_Week~a |
        L2D. | -.0047629  .0172612   -0.28   0.783   -.0391204   .0295946
             |
lnavg_Week~r |
         LD. | -.0519764  .0302555   -1.72   0.090   -.1121985   .0082457
             |
          m2 |  .0271128  .0026994   10.04   0.000    .0217397   .0324859
          m3 |  .0292808  .0031174    9.39   0.000    .0230757   .0354859
          m4 |  .0241837  .0028764    8.41   0.000    .0184585    .029909
          m5 |  .0203554  .0013417   15.17   0.000    .0176848   .0230259
          m6 |  .0189991  .0014383   13.21   0.000    .0161362    .021862
          m7 |  .0164127  .0014438   11.37   0.000     .013539   .0192865
          m8 |  .0207178  .0015903   13.03   0.000    .0175524   .0238833
```

```
   m9 |   .0209091   .001814    11.53   0.000    .0172984   .0245198

  m10 |   .0261925   .0017277   15.16   0.000    .0227536   .0296315

  m11 |    .029675   .0017197   17.26   0.000    .0262521   .0330979

  m12 |   .0211349   .0017423   12.13   0.000     .017667   .0246028

 _cons |  -.0195354   .0014337  -13.63   0.000    -.022389  -.0166817
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df     MS       Number of obs  =      96
-------------+----------------------------------   F(16, 79)     =    33.88
     Model |  .004463975      16  .000278998   Prob > F      =   0.0000
  Residual |  .000650468      79  8.2338e-06   R-squared     =   0.8728
-------------+----------------------------------   Adj R-squared =   0.8471
     Total |  .005114442      95  .000053836   Root MSE      =   .00287
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------
   lnemp1000 |
        LD. |  -.017453   .1256479   -0.14   0.890   -.2675488   .2326429
       L2D. |  .2379887   .1217548    1.95   0.054   -.0043582   .4803357
       L3D. |   .176301   .1223996    1.44   0.154   -.0673294   .4199313
            |
 lnavg_Week~a |
       L2D. |  -.0204792   .0194676   -1.05   0.296   -.0592285   .0182702
```

```
                 |
lnavg_Week~r |
        LD. |  -.031697   .0344796   -0.92   0.361   -.1003269    .0369328

            |
         m2 |   .0266428    .003113    8.56   0.000    .0204464    .0328391
         m3 |   .0308861   .0037079    8.33   0.000    .0235057    .0382665
         m4 |   .0249256   .0033368    7.47   0.000    .0182838    .0315673
         m5 |   .0204712    .001539   13.30   0.000    .0174079    .0235346
         m6 |   .0194407   .0016605   11.71   0.000    .0161355     .022746
         m7 |   .0168028   .0016832    9.98   0.000    .0134525    .0201531
         m8 |   .0208847   .0018763   11.13   0.000      .01715    .0246194
         m9 |   .0200133   .0020821    9.61   0.000     .015869    .0241576
        m10 |   .0269085   .0020515   13.12   0.000     .022825    .0309919
        m11 |   .0303915   .0020153   15.08   0.000    .0263802    .0344028
        m12 |   .0218755   .0020022   10.93   0.000    .0178902    .0258608
       _cons |  -.0200705   .0017373  -11.55   0.000   -.0235285   -.0166124
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |       SS       df       MS          Number of obs  =      96
-------------+------------------------------     F(16, 79)      =   30.20
      Model | .004901311     16  .000306332     Prob > F       =  0.0000
   Residual |   .00080136     79  .000010144     R-squared      =  0.8595
-------------+------------------------------     Adj R-squared  =  0.8310
      Total | .005702671     95  .000060028     Root MSE       =  .00318
```

```
--------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
   lnemp1000 |
       LD. | -.2357456  .1294056   -1.82  0.072   -.4933209   .0218298
      L2D. |  .2943333  .1345413    2.19  0.032    .0265356   .562131
      L3D. |  .0482685  .1433064    0.34  0.737   -.2369758   .3335128
           |
lnavg_Week~a |
      L2D. | -.0287642  .0215023   -1.34  0.185   -.0715635   .014035
           |
lnavg_Week~r |
       LD. | -.1006961  .0350227   -2.88  0.005   -.1704069  -.0309852
           |
        m2 |  .0230917  .0033442    6.90  0.000    .0164352   .0297481
        m3 |  .0331568  .0040819    8.12  0.000    .025032    .0412816
        m4 |  .0227986  .003868     5.89  0.000    .0150995   .0304977
        m5 |  .0209296  .0017078   12.26  0.000    .0175303   .0243289
        m6 |  .0195487  .0018439   10.60  0.000    .0158784   .0232189
        m7 |  .0159642  .0018806    8.49  0.000    .0122211   .0197074
        m8 |  .0198681  .0020945    9.49  0.000    .0156992   .0240371
        m9 |  .0194467  .0023502    8.27  0.000    .0147688   .0241247
       m10 |  .0272956  .0022776   11.98  0.000    .0227621   .0318291
       m11 |  .0307411  .0022585   13.61  0.000    .0262457   .0352366
       m12 |  .0230016  .0022113   10.40  0.000    .0186      .0274031
      _cons | -.0188918  .0019834   -9.53  0.000   -.0228396  -.014944
--------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(16, 79)	=	30.26
Model	.004956383	16	.000309774		Prob > F	=	0.0000
Residual	.000808834	79	.000010238		R-squared	=	0.8597
					Adj R-squared	=	0.8313
Total	.005765217	95	.000060686		Root MSE	=	.0032

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	-.1734662	.1233976	-1.41	0.164	-.419083	.0721506
L2D.	.0915406	.1237047	0.74	0.461	-.1546875	.3377687
L3D.	.0491044	.1439752	0.34	0.734	-.2374711	.3356799
lnavg_Week~a						
L2D.	-.0584306	.0230917	-2.53	0.013	-.1043936	-.0124677
lnavg_Week~r						
LD.	-.081235	.0341198	-2.38	0.020	-.1491488	-.0133213
m2	.0230392	.0033687	6.84	0.000	.016334	.0297443
m3	.0268851	.0036746	7.32	0.000	.0195709	.0341992

```
      m4 |  .0221186   .0038855    5.69   0.000    .0143847   .0298525

      m5 |  .0200593   .0016997   11.80   0.000     .016676   .0234425

      m6 |  .0181655     .00182    9.98   0.000    .0145429   .0217881

      m7 |   .014577   .0018887    7.72   0.000    .0108177   .0183364

      m8 |  .0180222   .0021231    8.49   0.000    .0137962   .0222482

      m9 |   .017152   .0023118    7.42   0.000    .0125505   .0217535

     m10 |  .0258759   .0023108   11.20   0.000    .0212763   .0304755

     m11 |  .0303292   .0022483   13.49   0.000    .0258541   .0348043

     m12 |  .0218041   .0021546   10.12   0.000    .0175155   .0260926

    _cons | -.0168159   .0019876   -8.46   0.000   -.0207722  -.0128596
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS         df     MS      Number of obs  =       96
-------------+----------------------------    F(16, 79)      =    30.44
     Model | .004963524      16  .00031022    Prob > F       =   0.0000
  Residual | .000805058      79  .000010191   R-squared      =   0.8604
-------------+----------------------------    Adj R-squared  =   0.8322
     Total | .005768582      95  .000060722   Root MSE       =   .00319
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
  lnemp1000 |
       LD. | -.1401755   .1210417  -1.16   0.250  -.3811029    .100752
```

```
L2D. |   .13835   .1073709   1.29   0.201   -.0753665   .3520664
L3D. |  .0329198   .1271317   0.26   0.796   -.2201294   .2859691
     |
lnavg_Week~a |
L2D. | -.0607359   .0232987  -2.61   0.011   -.1071108  -.0143611
     |
lnavg_Week~r |
LD. | -.0890291   .0349044  -2.55   0.013   -.1585045  -.0195537
     |
   m2 |  .0241043   .0031189   7.73   0.000    .0178962   .0303123
   m3 |  .0278692   .0034304   8.12   0.000    .0210412   .0346973
   m4 |  .0216483   .0035256   6.14   0.000    .0146306   .0286659
   m5 |   .020199   .0016511  12.23   0.000    .0169125   .0234854
   m6 |  .0184167   .0017585  10.47   0.000    .0149166   .0219169
   m7 |  .0148432   .0018637   7.96   0.000    .0111335   .0185528
   m8 |  .0185319   .0020626   8.98   0.000    .0144265   .0226374
   m9 |  .0176518   .0022921   7.70   0.000    .0130895   .0222142
  m10 |  .0261577   .0023268  11.24   0.000    .0215263    .030789
  m11 |  .0305565   .0022421  13.63   0.000    .0260938   .0350192
  m12 |  .0214054   .0022024   9.72   0.000    .0170216   .0257892
 _cons | -.0172865   .0019963  -8.66   0.000   -.0212601  -.0133129
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
 Source |      SS        df     MS      Number of obs  =      96
```

```
-------------+-------------------------------  F(16, 79)      =     29.93

   Model |  .00482032        16  .00030127  Prob > F      =    0.0000

  Residual |  .000795234       79  .000010066  R-squared     =    0.8584

-------------+-------------------------------  Adj R-squared =    0.8297

   Total |  .005615554       95  .000059111  Root MSE      =    .00317
```

```
-------------------------------------------------------------------------

 D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]

-------------+-----------------------------------------------------------

  lnemp1000 |

    LD. |  -.144074   .1199707   -1.20  0.233   -.3828698   .0947218

    L2D. |  .1113601   .1072581    1.04  0.302   -.1021318    .324852

    L3D. |  -.0120356   .104266   -0.12  0.908   -.219572    .1955007

        |

lnavg_Week~a |

    L2D. |  -.0602174  .0229516   -2.62  0.010   -.1059013  -.0145335

        |

lnavg_Week~r |

    LD. |  -.0897181  .0344162   -2.61  0.011   -.1582219  -.0212143

        |

    m2 |  .0235959   .0031018    7.61  0.000    .017422   .0297698

    m3 |  .0265998   .0035512    7.49  0.000   .0195313   .0336683

    m4 |  .0201776    .003332    6.06  0.000   .0135455   .0268097

    m5 |  .0198242   .0016525   12.00  0.000    .016535   .0231135

    m6 |  .0178586    .001836    9.73  0.000   .0142041    .021513

    m7 |  .0141199   .0019807    7.13  0.000   .0101773   .0180624

    m8 |  .0177345   .0021928    8.09  0.000   .0133698   .0220992

    m9 |   .016679   .0024184    6.90  0.000   .0118654   .0214927
```

```
    m10 |  .0251236  .0024274   10.35  0.000    .020292   .0299552

    m11 |  .0296735   .002345   12.65  0.000    .025006   .0343411

    m12 |   .020698  .0022457    9.22  0.000   .0162281   .0251679

   _cons | -.0162776  .0021458   -7.59  0.000  -.0205486  -.0120065
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS         df      MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)    =    30.38
     Model | .004861424       16 .000303839  Prob > F      =   0.0000

   Residual | .000790209       79 .000010003  R-squared     =   0.8602
-------------+----------------------------------   Adj R-squared =   0.8319
     Total | .005651633       95 .000059491  Root MSE      =   .00316
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
   lnemp1000 |

      LD. | -.1259783   .1217605   -1.03  0.304   -.3683366   .1163799

     L2D. |  .1296231    .108948    1.19  0.238   -.0872325   .3464787

     L3D. | -.0001025   .1048535   -0.00  0.999   -.2088081   .2086032
          |

lnavg_Week~a |

     L2D. | -.0696824   .0261207   -2.67  0.009   -.1216742  -.0176905
          |
```

lnavg_Week~r |

    LD. | -.0986189 .0362682 -2.72 0.008 -.1708088 -.0264289

       |

    m2 | .0239101 .0030688 7.79 0.000   .0178019 .0300183

    m3 | .026977 .0035607 7.58 0.000   .0198895 .0340644

    m4 | .020411 .0033306 6.13 0.000   .0137817 .0270404

    m5 | .0198298 .001647 12.04 0.000   .0165514 .0231081

    m6 | .0179456 .0018317 9.80 0.000   .0142997 .0215916

    m7 | .0142528 .0019784 7.20 0.000   .0103149 .0181908

    m8 | .0179928 .0022047 8.16 0.000   .0136044 .0223812

    m9 | .0170215 .0024425 6.97 0.000   .0121597 .0218832

   m10 | .0253629 .0024325 10.43 0.000   .020521 .0302048

   m11 | .0298502 .0023444 12.73 0.000   .0251837 .0345166

   m12 | .0207027 .0022384 9.25 0.000   .0162473 .0251581

  _cons | -.0166131 .0021727 -7.65 0.000 -.0209377 -.0122884

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(16, 79)	=	30.48
Model	.004848014	16	.000303001		Prob > F	=	0.0000
Residual	.000785341	79	9.9410e-06		R-squared	=	0.8606
					Adj R-squared	=	0.8324
Total	.005633355	95	.000059298		Root MSE	=	.00315

```
--------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------------
    lnemp1000 |
        LD. | -.1316793   .1215162   -1.08  0.282   -.3735512    .1101926
       L2D. |  .1219491   .1090891    1.12  0.267   -.0951872    .3390854
       L3D. | -.0033334   .1045632   -0.03  0.975   -.2114613    .2047944
            |
lnavg_Week~a |
       L2D. | -.0742561    .026837   -2.77  0.007   -.1276739   -.0208384
            |
lnavg_Week~r |
        LD. | -.1022805   .0364585   -2.81  0.006   -.1748494   -.0297116
            |
         m2 |  .0237277   .0030671    7.74  0.000    .0176227    .0298327
         m3 |  .0271149   .0035218    7.70  0.000     .020105    .0341248
         m4 |  .0203066   .0033215    6.11  0.000    .0136954    .0269178
         m5 |   .019768   .0016443   12.02  0.000     .016495    .0230409
         m6 |  .0178489   .0018313    9.75  0.000    .0142038     .021494
         m7 |  .0141138   .0019823    7.12  0.000    .0101681    .0180594
         m8 |  .0178274   .0022103    8.07  0.000    .0134279    .0222268
         m9 |  .0168781   .0024435    6.91  0.000    .0120144    .0217418
        m10 |  .0251727   .0024402   10.32  0.000    .0203157    .0300298
        m11 |  .0297616   .0023406   12.72  0.000    .0251028    .0344203
        m12 |  .0207052   .0022299    9.29  0.000    .0162667    .0251438
       _cons | -.0164473   .0021788   -7.55  0.000   -.0207841   -.0121105
--------------------------------------------------------------------------------

(1 real change made)
```

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(16, 79)	=	30.53
Model	.004843823	16	.000302739		Prob > F	=	0.0000
Residual	.000783347	79	9.9158e-06		R-squared	=	0.8608
					Adj R-squared	=	0.8326
Total	.005627171	95	.000059233		Root MSE	=	.00315

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	-.1301073	.121334	-1.07	0.287	-.3716166	.1114019
L2D.	.1286827	.1093713	1.18	0.243	-.0890154	.3463808
L3D.	.0048274	.1053097	0.05	0.964	-.2047864	.2144411
lnavg_Week~a						
L2D.	-.0738778	.0266689	-2.77	0.007	-.1269611	-.0207946
lnavg_Week~r						
LD.	-.103156	.0363578	-2.84	0.006	-.1755244	-.0307875
m2	.0237948	.0030633	7.77	0.000	.0176974	.0298923
m3	.0273472	.0035371	7.73	0.000	.0203067	.0343877
m4	.0201363	.0032921	6.12	0.000	.0135836	.0266891

```
   m5 |   .0197995   .0016434   12.05   0.000   .0165283   .0230707

   m6 |    .017915   .0018325    9.78   0.000   .0142675   .0215626

   m7 |   .0142132   .0019876    7.15   0.000    .010257   .0181693

   m8 |    .017955    .002218    8.09   0.000   .0135401   .0223699

   m9 |   .0170309   .0024514    6.95   0.000   .0121516   .0219102

  m10 |   .0253256   .0024508   10.33   0.000   .0204475   .0302038

  m11 |   .0299014   .0023498   12.73   0.000   .0252242   .0345785

  m12 |   .0207823   .0022312    9.31   0.000   .0163411   .0252235

 _cons | -.0166104   .0021919   -7.58   0.000  -.0209733  -.0122476
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS         df     MS      Number of obs  =      96
-------------+--------------------------------  F(16, 79)     =    30.54
    Model |  .004844136      16  .000302759  Prob > F      =   0.0000
  Residual |  .000783207      79  9.9140e-06  R-squared     =   0.8608
-------------+--------------------------------  Adj R-squared =   0.8326
    Total |  .005627343      95  .000059235  Root MSE      =   .00315
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------------
  lnemp1000 |

        LD. | -.1308699   .1207591   -1.08   0.282   -.3712347    .109495

       L2D. |  .1285739   .1090628    1.18   0.242   -.0885101   .3456579
```

```
    L3D. |  .0059129  .1056915    0.06  0.956   -.2044608   .2162866
         |
lnavg_Week~a |
    L2D. |  -.0742738   .026469   -2.81  0.006    -.126959  -.0215885
         |
lnavg_Week~r |
     LD. |  -.1034868  .0361346   -2.86  0.005   -.1754109  -.0315627
         |
      m2 |  .0237761  .0030518    7.79  0.000    .0177016   .0298506
      m3 |  .0273542  .0035354    7.74  0.000    .0203172   .0343912
      m4 |  .0201668  .0033011    6.11  0.000    .0135961   .0267375
      m5 |  .0197455  .0016482   11.98  0.000    .0164648   .0230261
      m6 |  .0179143  .0018323    9.78  0.000    .0142672   .0215615
      m7 |   .014213  .0019873    7.15  0.000    .0102574   .0181685
      m8 |  .0179533  .0022157    8.10  0.000     .013543   .0223635
      m9 |  .0170366  .0024493    6.96  0.000    .0121613   .0219119
     m10 |   .025329  .0024504   10.34  0.000    .0204517   .0302063
     m11 |   .029913  .0023516   12.72  0.000    .0252322   .0345937
     m12 |  .0207993  .0022332    9.31  0.000    .0163543   .0252443
    _cons |  -.0166151  .0021897   -7.59  0.000   -.0209735  -.0122566
------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS        df     MS    Number of obs  =      96
-------------+-------------------------------- F(16, 79)    =    30.56
```

```
      Model |  .004845139      16  .000302821   Prob > F      =   0.0000

   Residual |  .000782908      79  9.9102e-06   R-squared     =   0.8609

-------------+-------------------------------   Adj R-squared  =   0.8327

      Total |  .005628047      95  .000059243   Root MSE      =   .00315
```

```
--------------------------------------------------------------------------------

 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]

-------------+------------------------------------------------------------------

   lnemp1000 |

        LD. |  -.1321944   .120953   -1.09   0.278   -.3729453    .1085565

        L2D. |   .1324538   .1086469   1.22   0.226   -.0838025     .34871

        L3D. |   .0086278   .105761    0.08   0.935   -.2018843    .2191399

             |

lnavg_Week~a |

        L2D. |   -.074769   .0263946  -2.83   0.006   -.1273062   -.0222318

             |

lnavg_Week~r |

         LD. |  -.1027488   .0362023  -2.84   0.006   -.1748077   -.0306899

             |

         m2 |   .0237813   .0030479   7.80   0.000    .0177146    .0298481

         m3 |    .027482   .0035321   7.78   0.000    .0204515    .0345125

         m4 |   .0202509   .0033051   6.13   0.000    .0136722    .0268297

         m5 |   .0197633   .0016476  12.00   0.000    .0164838    .0230428

         m6 |   .0179873    .001878   9.58   0.000    .0142492    .0217255

         m7 |    .014259   .0019852   7.18   0.000    .0103076    .0182104

         m8 |   .0179974   .0022109   8.14   0.000    .0135966    .0223981

         m9 |   .0171119   .0024443   7.00   0.000    .0122467    .0219771

        m10 |   .0254008   .0024465  10.38   0.000    .0205312    .0302704
```

```
    m11 |  .0299826   .0023541    12.74   0.000    .0252968    .0346683
    m12 |  .0208463   .0022378     9.32   0.000    .0163921    .0253006
   _cons | -.0166819   .0021838    -7.64   0.000   -.0210288   -.0123351
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)


```
    Source |      SS          df      MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)     =    30.95
     Model |  .004838621      16  .000302414   Prob > F      =   0.0000
   Residual |  .00077184      79  9.7701e-06   R-squared     =   0.8624
-------------+----------------------------------   Adj R-squared =   0.8346
     Total |  .005610461      95  .000059057   Root MSE      =    .00313
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
   lnemp1000 |
        LD. | -.1253505   .1195982   -1.05   0.298   -.3634046    .1127037
       L2D. |  .1264203   .1076144    1.17   0.244   -.0877809    .3406214
       L3D. |  .0113092   .1048245    0.11   0.914   -.1973387    .2199572
            |
lnavg_Week~a |
       L2D. | -.0730226   .0262479   -2.78   0.007   -.1252679   -.0207774
            |
lnavg_Week~r |
```

```
 LD. | -.1082491   .035868   -3.02  0.003   -.1796426  -.0368556

     |

  m2 |  .0238328   .0030134   7.91  0.000    .0178348   .0298308

  m3 |  .0273135   .003503    7.80  0.000    .020341    .034286

  m4 |  .0202724   .003279    6.18  0.000    .0137457   .0267991

  m5 |  .0197274   .0016361  12.06  0.000    .0164708   .022984

  m6 |  .0179031   .0018658   9.60  0.000    .0141894   .0216169

  m7 |  .014715    .0019864   7.41  0.000    .0107612   .0186687

  m8 |  .0180029   .0021871   8.23  0.000    .0136497   .0223562

  m9 |  .0170374   .0024218   7.04  0.000    .0122169   .0218578

 m10 |  .0253308   .0024262  10.44  0.000    .0205016   .0301599

 m11 |  .0299232   .0023358  12.81  0.000    .0252738   .0345725

 m12 |  .0207912   .0022223   9.36  0.000    .0163678   .0252146

_cons | -.0166563   .002159   -7.71  0.000   -.0209537  -.012359
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
  Source |     SS        df     MS     Number of obs  =     96
---------+---------------------------   F(16, 79)     =    31.38
   Model | .004840093    16 .000302506  Prob > F      =   0.0000
Residual | .000761521    79 9.6395e-06  R-squared     =   0.8641
---------+---------------------------   Adj R-squared =   0.8365
   Total | .005601614    95 .000058964  Root MSE      =    .0031
```

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	-.139748	.1191034	-1.17	0.244	-.3768175	.0973214
L2D.	.1152773	.1067173	1.08	0.283	-.0971382	.3276928
L3D.	-.0012503	.1040065	-0.01	0.990	-.2082701	.2057695
lnavg_Week~a						
L2D.	-.0745819	.0260745	-2.86	0.005	-.1264818	-.022682
lnavg_Week~r						
LD.	-.1101221	.0356652	-3.09	0.003	-.1811119	-.0391323
m2	.0234721	.0029984	7.83	0.000	.0175038	.0294403
m3	.0270098	.0034746	7.77	0.000	.0200938	.0339258
m4	.0199748	.0032534	6.14	0.000	.013499	.0264505
m5	.0196625	.0016254	12.10	0.000	.0164272	.0228978
m6	.0177654	.0018528	9.59	0.000	.0140776	.0214532
m7	.0145024	.0019743	7.35	0.000	.0105726	.0184321
m8	.018715	.0021682	8.63	0.000	.0143994	.0230307
m9	.0167595	.0024026	6.98	0.000	.0119773	.0215417
m10	.0249981	.0024106	10.37	0.000	.0201999	.0297962
m11	.0297844	.002318	12.85	0.000	.0251705	.0343983
m12	.0207594	.0022065	9.41	0.000	.0163675	.0251513
_cons	-.0163422	.0021439	-7.62	0.000	-.0206095	-.0120749

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df      MS      Number of obs  =      96
-------------+---------------------------------  F(16, 79)     =    31.32
      Model | .004794678      16 .000299667  Prob > F      =   0.0000
   Residual | .000755826      79 9.5674e-06  R-squared     =   0.8638
-------------+---------------------------------  Adj R-squared =   0.8362
      Total | .005550504      95 .000058426  Root MSE      =   .00309
```

```
--------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.  Std. Err.     t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------------
   lnemp1000 |
        LD. |  -.156851  .1205686   -1.30  0.197   -.3968368   .0831348
       L2D. |  .1042873  .1071299    0.97  0.333   -.1089495    .317524
       L3D. | -.0024982  .1034991   -0.02  0.981    -.208508   .2035116
             |
lnavg_Week~a |
       L2D. | -.0729651  .0260546   -2.80  0.006   -.1248255  -.0211046
             |
lnavg_Week~r |
        LD. | -.1035809  .0365051   -2.84  0.006   -.1762425  -.0309193
             |
          m2 |   .023085  .0030282    7.62  0.000    .0170576   .0291125
          m3 |  .026801  .0034652    7.73  0.000    .0199038   .0336983
          m4 |  .0199979   .003237    6.18  0.000    .0135549    .026441
          m5 |  .0196398  .0016193   12.13  0.000    .0164166    .022863
```

```
   m6 |  .0177286  .0018451   9.61  0.000   .014056   .0214012

   m7 |  .0144058  .0019695   7.31  0.000   .0104855  .0183261

   m8 |  .0185241  .0021734   8.52  0.000   .0141982  .0228501

   m9 |  .017029   .0023835   7.14  0.000   .0122848  .0217733

  m10 |  .0249059  .0024021  10.37  0.000   .0201246  .0296871

  m11 |  .029738   .0023059  12.90  0.000   .0251483  .0343277

  m12 |  .0208799  .0022011   9.49  0.000   .0164988  .025261

 _cons | -.016166   .0021458  -7.53  0.000  -.0204371  -.011895
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |    SS         df     MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)    =    32.24
    Model | .004849795      16 .000303112   Prob > F      =   0.0000
  Residual | .000742781      79 9.4023e-06   R-squared     =   0.8672
-------------+----------------------------------   Adj R-squared =   0.8403
    Total | .005592576      95 .000058869   Root MSE      =   .00307
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
   lnemp1000 |

     LD. | -.1706102  .1200666  -1.42  0.159  -.4095968   .0683763

    L2D. |  .0874327  .1071205   0.82  0.417  -.1257853   .3006507

    L3D. | -.0167791  .1032019  -0.16  0.871  -.2221972   .1886391
```

```
                  |
lnavg_Week~a |
        L2D. | -.0715536   .0258566   -2.77   0.007   -.1230198   -.0200874
                  |
lnavg_Week~r |
        LD. | -.1058937   .0362076   -2.92   0.004   -.1779632   -.0338242
                  |
        m2 |   .0226887   .0030207    7.51   0.000    .0166762    .0287013
        m3 |   .0263441   .0034564    7.62   0.000    .0194643    .033224
        m4 |   .0196399   .0032215    6.10   0.000    .0132277    .026052
        m5 |   .0195594   .0016066   12.17   0.000    .0163614    .0227573
        m6 |   .0175377   .0018361    9.55   0.000    .0138829    .0211924
        m7 |   .0141608   .0019635    7.21   0.000    .0102526    .018069
        m8 |   .0182091   .002171     8.39   0.000    .0138879    .0225304
        m9 |   .0166623   .0023833    6.99   0.000    .0119186    .0214061
       m10 |   .0251789   .0023303   10.81   0.000    .0205406    .0298172
       m11 |   .0295335   .0022925   12.88   0.000    .0249704    .0340965
       m12 |   .0208084   .0021827    9.53   0.000    .0164638    .025153
      _cons | -.0157812   .002152    -7.33   0.000   -.0200647   -.0114977
-------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |    SS         df      MS     Number of obs  =      96
-------------+--------------------------------   F(16, 79)    =    33.34
     Model | .004898252      16 .000306141   Prob > F      =   0.0000
```

```
    Residual | .000725392      79  9.1822e-06   R-squared    =   0.8710
-------------+----------------------------------  Adj R-squared  =   0.8449
       Total | .005623644      95  .000059196   Root MSE      =   .00303
```

```
--------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
   lnemp1000 |
        LD. | -.2018911   .1207825   -1.67   0.099   -.4423027    .0385205
       L2D. |  .0581265   .1079732    0.54   0.592   -.1567887    .2730418
       L3D. | -.0292167   .1022067   -0.29   0.776   -.2326541    .1742207
             |
lnavg_Week~a |
       L2D. | -.0708929   .0249281   -2.84   0.006   -.1205111   -.0212747
             |
lnavg_Week~r |
        LD. | -.0974587   .0359729   -2.71   0.008   -.1690609   -.0258565
             |
          m2 |  .0219064   .0030384    7.21   0.000    .0158586    .0279541
          m3 |  .0256374   .0034538    7.42   0.000    .0187627     .032512
          m4 |  .0193961   .0031839    6.09   0.000    .0130588    .0257334
          m5 |  .0194557   .0015892   12.24   0.000    .0162926    .0226189
          m6 |  .0173392   .0018196    9.53   0.000    .0137173     .020961
          m7 |  .0138201   .0019544    7.07   0.000    .0099299    .0177103
          m8 |   .017695   .0021773    8.13   0.000    .0133611    .0220289
          m9 |  .0162162   .0023765    6.82   0.000    .0114858    .0209466
         m10 |  .0247725   .0023184   10.69   0.000    .0201578    .0293872
         m11 |  .0299315   .0022237   13.46   0.000    .0255053    .0343576
```

```
    m12 |   .020908  .0021568   9.69  0.000   .0166151   .025201
   _cons | -.0152352  .0021623  -7.05  0.000   -.019539  -.0109313
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df       MS      Number of obs  =      96
-------------+----------------------------------  F(16, 79)      =    32.43
     Model | .004895472       16 .000305967  Prob > F       =   0.0000
  Residual |   .0007453       79 9.4342e-06  R-squared      =   0.8679
-------------+----------------------------------  Adj R-squared  =   0.8411
     Total | .005640772       95 .000059377  Root MSE       =   .00307
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
  lnemp1000 |
       LD. | -.200748  .1241411  -1.62  0.110  -.4478446   .0463487
       L2D. | .0559813  .1119083   0.50  0.618  -.1667666   .2787291
       L3D. | -.0349729   .105249  -0.33  0.741  -.2444658   .1745199
            |
lnavg_Week~a |
       L2D. | -.0738726  .0257099  -2.87  0.005  -.1250469  -.0226983
            |
lnavg_Week~r |
       LD. | -.0956802  .0366395  -2.61  0.011  -.1686094  -.0227511
```

```
            |
        m2 |  .0219329   .0031278    7.01   0.000    .0157072    .0281586
        m3 |  .0255123   .0035536    7.18   0.000    .0184391    .0325855
        m4 |   .019245   .0032578    5.91   0.000    .0127605    .0257295
        m5 |    .01944   .0016126   12.05   0.000    .0162302    .0226499
        m6 |   .017318   .0018559    9.33   0.000     .013624    .0210121
        m7 |  .0137496   .0020023    6.87   0.000    .0097641    .0177352
        m8 |  .0176294   .0022468    7.85   0.000    .0131572    .0221015
        m9 |  .0161577    .002451    6.59   0.000    .0112792    .0210363
       m10 |  .0246978   .0023876   10.34   0.000    .0199455    .0294502
       m11 |  .0298476   .0022686   13.16   0.000    .0253321    .0343631
       m12 |  .0202973   .0021711    9.35   0.000    .0159757    .0246188
      _cons | -.0151511   .0022476   -6.74   0.000   -.0196249   -.0106772
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS        df      MS      Number of obs  =      96
-------------+-----------------------------   F(16, 79)     =    31.23
     Model | .004683815      16 .000292738   Prob > F       =   0.0000
  Residual | .000740634      79  9.3751e-06  R-squared      =   0.8635
-------------+-----------------------------   Adj R-squared  =   0.8358
     Total | .005424449      95 .000057099   Root MSE       =   .00306
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
```

```
-------------+------------------------------------------------------------

  lnemp1000 |
       LD. | -.2142277  .1218343  -1.76  0.083  -.4567328   .0282774
       L2D. |  .0339779  .1133896   0.30  0.765  -.1917186   .2596743
       L3D. | -.0462657  .1059526  -0.44  0.664  -.2571591   .1646277
           |
lnavg_Week~a |
      L2D. | -.0741514  .0254617  -2.91  0.005  -.1248316  -.0234711
           |
lnavg_Week~r |
       LD. | -.0962244  .0365293  -2.63  0.010  -.1689341  -.0235147
           |
        m2 |  .0210027  .0030604   6.86  0.000   .0149112   .0270943
        m3 |  .0244115  .0036672   6.66  0.000   .0171121   .0317109
        m4 |  .0184548  .0033403   5.52  0.000   .0118061   .0251036
        m5 |  .018832   .0016271  11.57  0.000   .0155934   .0220706
        m6 |  .0166017  .0019055   8.71  0.000   .0128089   .0203946
        m7 |  .012971   .0020463   6.34  0.000   .008898    .0170441
        m8 |  .0167701  .0022834   7.34  0.000   .0122251   .0213151
        m9 |  .0152596  .0025329   6.02  0.000   .0102179   .0203012
       m10 |  .0238214  .0024569   9.70  0.000   .0189311   .0287117
       m11 |  .0291119  .0023518  12.38  0.000   .0244308   .0337931
       m12 |  .0197715  .0022228   8.89  0.000   .015347    .0241959
     _cons | -.0142309  .0023226  -6.13  0.000  -.0188539  -.009608

--------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |     SS         df      MS      Number of obs  =      96
-------------+----------------------------------  F(16, 79)    =    32.37
      Model | .004770151      16 .000298134  Prob > F    =    0.0000
   Residual | .000727663      79 9.2109e-06  R-squared   =    0.8676
-------------+----------------------------------  Adj R-squared =    0.8408
      Total | .005497815      95 .000057872  Root MSE    =    .00303
```

```
----------------------------------------------------------------------------
 D.lnemp1000 |   Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+--------------------------------------------------------------
  lnemp1000 |
       LD. | -.2252331  .1210785   -1.86  0.067   -.4662339   .0157676
      L2D. |   .003853  .1121832    0.03  0.973   -.219442    .227148
      L3D. | -.0791186  .1058124   -0.75  0.457   -.2897329   .1314956
           |
lnavg_Week~a |
      L2D. |  -.070895  .0253517   -2.80  0.006   -.1213564  -.0204337
           |
lnavg_Week~r |
       LD. |  -.092808  .0363201   -2.56  0.013   -.1651013  -.0205146
           |
        m2 |   .021446  .0030001    7.15  0.000    .0154745   .0274174
        m3 |  .0234258  .0036141    6.48  0.000    .0162322   .0306195
        m4 |  .0175657  .0033178    5.29  0.000    .0109617   .0241698
        m5 |  .0186897  .0016114   11.60  0.000    .0154823   .0218971
        m6 |  .0162701  .0018853    8.63  0.000    .0125176   .0200227
```

```
   m7 |    .01251  .0020317    6.16  0.000    .0084659   .0165541

   m8 |  .0162058  .0022755    7.12  0.000    .0116765   .0207351

   m9 |  .0145864  .0025124    5.81  0.000    .0095857   .0195871

  m10 |  .0231714  .0024423    9.49  0.000    .0183101   .0280326

  m11 |  .0285799  .0023175   12.33  0.000    .0239671   .0331927

  m12 |  .0195014  .0021934    8.89  0.000    .0151357   .0238672

 _cons | -.0135142  .0023151   -5.84  0.000   -.0181223  -.0089061
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |     SS         df     MS     Number of obs  =       96
-------------+----------------------------------  F(16, 79)     =    32.78
    Model | .004766039     16 .000297877  Prob > F      =   0.0000
 Residual | .000717871     79 9.0870e-06  R-squared     =   0.8691
-------------+----------------------------------  Adj R-squared =   0.8426
    Total | .005483911     95 .000057725  Root MSE      =   .00301
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
  lnemp1000 |
      LD. | -.2587732  .1198263  -2.16  0.034   -.4972814  -.0202649

     L2D. | -.0206091  .1112797  -0.19  0.854   -.2421059   .2008876

     L3D. | -.0728604  .1044431  -0.70  0.487   -.2807493   .1350284

          |
```

lnavg_Week~a |

    L2D. | -.0791805   .0257444   -3.08   0.003   -.1304234   -.0279376

       |

lnavg_Week~r |

    LD. | -.0978974   .0363868   -2.69   0.009   -.1703235   -.0254713

     |

    m2 | .0205916   .0029723   6.93   0.000   .0146755   .0265078

    m3 | .0232036   .0035603   6.52   0.000   .016117   .0302902

    m4 | .0178318   .0032742   5.45   0.000   .0113147   .0243488

    m5 | .0185628   .0016018   11.59   0.000   .0153745   .0217512

    m6 | .0160843   .0018763   8.57   0.000   .0123496   .019819

    m7 | .0122508   .0020249   6.05   0.000   .0082203   .0162812

    m8 | .0158297   .0022662   6.98   0.000   .0113189   .0203406

    m9 | .014291   .0025028   5.71   0.000   .0093092   .0192728

    m10 | .0228658   .0024371   9.38   0.000   .0180149   .0277167

    m11 | .0286273   .0023005   12.44   0.000   .0240483   .0332063

    m12 | .0198346   .0021634   9.17   0.000   .0155284   .0241407

 _cons | -.0131641   .0023092   -5.70   0.000   -.0177604   -.0085678

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS	Number of obs	=	96
				F(16, 79)	=	32.72
Model	.004756092	16	.000297256	Prob > F	=	0.0000
Residual	.000717722	79	9.0851e-06	R-squared	=	0.8689

```
-------------+---------------------------------  Adj R-squared  =   0.8423

   Total |  .005473814      95 .000057619  Root MSE      =    .00301
```

```
--------------------------------------------------------------------------

 D.lnemp1000 |    Coef.  Std. Err.     t   P>|t|   [95% Conf. Interval]

-------------+------------------------------------------------------------
  lnemp1000 |

     LD. | -.2428986  .1187318  -2.05  0.044   -.4792284  -.0065688

     L2D. | -.0149025   .112351  -0.13  0.895   -.2385316   .2087265

     L3D. | -.0754209    .10382  -0.73  0.470   -.2820694   .1312277

         |

lnavg_Week~a |

     L2D. | -.0757916  .0257952  -2.94  0.004   -.1271356  -.0244476

         |

lnavg_Week~r |

     LD. | -.1004229   .036109  -2.78  0.007   -.1722961  -.0285497

         |

      m2 |  .020917  .0029754   7.03  0.000    .0149946   .0268395

      m3 |  .0232311  .0035647   6.52  0.000    .0161358   .0303264

      m4 |  .0172187  .0031428   5.48  0.000     .010963   .0234743

      m5 |  .0185774  .0016028  11.59  0.000    .0153872   .0217677

      m6 |  .0160854  .0018759   8.57  0.000    .0123515   .0198194

      m7 |  .0123122  .0020345   6.05  0.000    .0082626   .0163617

      m8 |  .0159476  .0022834   6.98  0.000    .0114026   .0204927

      m9 |  .0143205  .0025078   5.71  0.000    .0093289   .0193121

     m10 |  .0229078  .0024446   9.37  0.000    .0180421   .0277736

     m11 |  .0285589  .0022853  12.50  0.000    .0240102   .0331076

     m12 |  .0196559  .0021342   9.21  0.000    .0154079   .0239039
```

```
        _cons |    -.01325   .0023261   -5.70   0.000   -.0178801      -.00862
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |      SS          df     MS      Number of obs   =       96
-------------+--------------------------------   F(16, 79)      =     32.53
       Model |  .004750305       16  .000296894  Prob > F       =    0.0000
    Residual |  .000721014       79  9.1268e-06  R-squared      =    0.8682
-------------+--------------------------------   Adj R-squared  =    0.8415
       Total |  .005471319       95  .000057593  Root MSE       =    .00302
```

```
  D.lnemp1000 |   Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
     lnemp1000 |
          LD. |  -.2250426   .1192947   -1.89   0.063   -.4624928    .0124077
         L2D. |  -.0023764   .1118884   -0.02   0.983   -.2250847    .2203318
         L3D. |   -.091043   .1051205   -0.87   0.389   -.3002801    .1181941
              |
 lnavg_Week~a |
         L2D. |  -.0767519   .0258391   -2.97   0.004   -.1281834   -.0253205
              |
 lnavg_Week~r |
          LD. |  -.1002818   .0361917   -2.77   0.007   -.1723196   -.0282439
              |
```

```
      m2 |   .0213782   .0029793    7.18   0.000    .0154482    .0273083
      m3 |   .0233218   .0035696    6.53   0.000    .0162166     .030427
      m4 |   .0167713   .0031786    5.28   0.000    .0104444    .0230981
      m5 |   .0185629   .0016171   11.48   0.000     .015344    .0217817
      m6 |   .0161299   .0018789    8.58   0.000      .01239    .0198697
      m7 |   .0123246   .0020394    6.04   0.000    .0082653     .016384
      m8 |   .0160469   .0022849    7.02   0.000     .011499    .0205948
      m9 |   .0143608   .0025127    5.72   0.000    .0093593    .0193622
     m10 |   .0228853   .0024528    9.33   0.000    .0180031    .0277676
     m11 |    .028447   .0022994   12.37   0.000    .0238701    .0330239
     m12 |   .0193671   .0021524    9.00   0.000    .0150828    .0236514
    _cons |  -.0132889   .0023307   -5.70   0.000    -.017928   -.0086498
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS         df      MS      Number of obs  =      96
-------------+----------------------------   F(16, 79)      =    32.67
     Model |  .004759637     16 .000297477   Prob > F       =   0.0000
  Residual |  .000719385     79 9.1061e-06   R-squared      =   0.8687
-------------+----------------------------   Adj R-squared  =   0.8421
     Total |  .005479022     95 .000057674   Root MSE       =   .00302
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
```

lnemp1000 |

    LD. | -.2121895 .1183692 -1.79 0.077 -.4477976 .0234186

   L2D. | .0344896 .1117167   0.31 0.758 -.1878768 .2568561

   L3D. | -.064969 .104266 -0.62 0.535 -.2725054 .1425673

       |

lnavg_Week~a |

   L2D. | -.0809777 .026005 -3.11 0.003 -.1327393 -.0292161

       |

lnavg_Week~r |

    LD. | -.1063297 .0362437 -2.93 0.004 -.178471 -.0341883

       |

     m2 | .0218724 .0029543   7.40 0.000   .015992 .0277528

     m3 | .0244366 .0035745   6.84 0.000 .0173219 .0315514

     m4 | .0174481 .0031652   5.51 0.000   .011148 .0237482

     m5 | .0187185 .0016148 11.59 0.000 .0155042 .0219327

     m6 | .0165174 .0019241   8.58 0.000 .0126877 .0203471

     m7 | .0127824 .0020281   6.30 0.000 .0087455 .0168192

     m8 | .0166392 .0022679   7.34 0.000   .012125 .0211534

     m9 | .0150462 .0025013   6.02 0.000 .0100675 .0200249

    m10 | .023493 .0024346   9.65 0.000   .018647 .028339

    m11 | .0289982 .002304 12.59 0.000 .0244122 .0335841

    m12 | .0195567 .0021529   9.08 0.000 .0152714 .023842

  _cons | -.0140114 .0023103 -6.06 0.000   -.01861 -.0094128

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
  Source |     SS        df      MS      Number of obs  =      96
---------+------------------------------   F(16, 79)     =    32.81
   Model | .004770298     16 .000298144   Prob > F       =   0.0000
Residual | .000717979     79 9.0883e-06   R-squared      =   0.8692
---------+------------------------------   Adj R-squared  =   0.8427
   Total | .005488277     95 .000057771   Root MSE       =   .00301
```

```
--------------------------------------------------------------------
 D.lnemp1000 |    Coef.  Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------
  lnemp1000 |
        LD. | -.2125762  .1165198  -1.82  0.072   -.4445031   .0193507
       L2D. |  .0309682  .1105379   0.28  0.780    -.189052   .2509883
       L3D. | -.0618408  .1040668  -0.59  0.554   -.2689807    .145299
            |
lnavg_Week~a |
       L2D. | -.0813571  .0258848  -3.14  0.002   -.1328795  -.0298347
            |
lnavg_Week~r |
        LD. | -.1087405  .0363319  -2.99  0.004   -.1810575  -.0364236
            |
         m2 |  .0218173  .0029142   7.49  0.000    .0160167   .0276178
         m3 |  .0243755  .0035499   6.87  0.000    .0173096   .0314413
         m4 |  .0175228  .0031624   5.54  0.000    .0112282   .0238175
         m5 |  .0186881  .0016137  11.58  0.000    .0154761   .0219001
         m6 |  .0164815  .0019187   8.59  0.000    .0126624   .0203007
         m7 |  .0129034   .002046   6.31  0.000     .008831   .0169759
```

P a g e | 182

```
    m8 |  .0166208   .002243    7.41  0.000    .0121561   .0210855

    m9 |  .0150097  .0024836    6.04  0.000    .0100661   .0199532

   m10 |  .0234701  .0024187    9.70  0.000    .0186558   .0282845

   m11 |  .0289944  .0022972   12.62  0.000    .0244219   .0335668

   m12 |  .0195784  .0021503    9.10  0.000    .0152983   .0238585

  _cons | -.0139939   .002282   -6.13  0.000   -.0185362  -.0094517
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS          df      MS      Number of obs  =      96
-------------+----------------------------   F(16, 79)      =    33.99
    Model |  .004787992      16 .000299249   Prob > F       =   0.0000
 Residual |  .000695437      79 8.8030e-06   R-squared      =   0.8732
-------------+----------------------------   Adj R-squared  =   0.8475
    Total |  .005483429      95  .00005772   Root MSE       =   .00297
```

```
 D.lnemp1000 |   Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+--------------------------------------------------------
  lnemp1000 |

       LD. | -.2136641  .1146752  -1.86  0.066   -.4419194   .0145911

      L2D. |  .0110771  .1078216   0.10  0.918   -.2035363   .2256906

      L3D. | -.0895801  .1021867  -0.88  0.383   -.2929775   .1138174
           |
 lnavg_Week~a |
```

```
     L2D. |  -.0902398   .0260729   -3.46   0.001   -.1421366   -.0383429
          |

lnavg_Week~r |
      LD. |  -.1144392   .0357081   -3.20   0.002   -.1855144   -.043364
          |
       m2 |   .0216436   .0028663    7.55   0.000    .0159384    .0273489
       m3 |    .023658   .0034626    6.83   0.000    .0167659    .0305502
       m4 |   .0168151   .0031013    5.42   0.000    .0106421    .022988
       m5 |   .0185604   .0015861   11.70   0.000    .0154034    .0217174
       m6 |    .016184   .0018784    8.62   0.000    .0124453    .0199228
       m7 |   .0124887    .002009    6.22   0.000     .00849    .0164875
       m8 |   .0169833   .0022136    7.67   0.000    .0125772    .0213893
       m9 |   .0144891   .0024254    5.97   0.000    .0096615    .0193168
      m10 |   .0228829   .0023689    9.66   0.000    .0181678    .027598
      m11 |   .0285908   .0022471   12.72   0.000     .024118    .0330636
      m12 |   .0192986   .0021107    9.14   0.000    .0150974    .0234998
     _cons |  -.0134408   .0022317   -6.02   0.000   -.0178829   -.0089988
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |       SS        df      MS      Number of obs  =      96
------------+----------------------------------   F(16, 79)      =    34.07
      Model | .004828419       16 .000301776   Prob > F       =   0.0000
   Residual | .000699727       79 8.8573e-06   R-squared      =   0.8734
------------+----------------------------------   Adj R-squared  =   0.8478
```

```
   Total |  .005528146      95  .000058191   Root MSE     =    .00298
```

```
 D.lnemp1000 |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
```

-------------+--

```
  lnemp1000 |

        LD. |  -.2136449  .1150954   -1.86   0.067   -.4427366   .0154469

       L2D. |   .0176891  .1081808    0.16   0.871   -.1976393   .2330176

       L3D. |  -.064623   .102151    -0.63   0.529   -.2679494   .1387034
            |

lnavg_Week~a |

       L2D. |  -.0882365  .0260984   -3.38   0.001    -.140184   -.0362889
            |

lnavg_Week~r |

        LD. |  -.1124847  .0357897   -3.14   0.002   -.1837224   -.041247
            |

         m2 |   .0216755  .0028773    7.53   0.000    .0159484   .0274026

         m3 |   .0240141  .0034694    6.92   0.000    .0171085   .0309197

         m4 |   .0174609  .0030996    5.63   0.000    .0112913   .0236305

         m5 |   .018601   .001591    11.69   0.000    .0154342   .0217678

         m6 |   .0163443  .0018835    8.68   0.000    .0125952   .0200933

         m7 |   .0127408  .0020148    6.32   0.000    .0087304   .0167512

         m8 |   .0172155  .0022227    7.75   0.000    .0127914   .0216396

         m9 |   .0138219  .0024351    5.68   0.000     .008975   .0186688

        m10 |   .0232612  .0023752    9.79   0.000    .0185334   .0279889

        m11 |   .0288521  .0022491   12.83   0.000    .0243754   .0333287

        m12 |   .0195544  .0021101    9.27   0.000    .0153542   .0237545

       _cons |  -.0137865  .0022393   -6.16   0.000   -.0182437   -.0093294
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df      MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)     =    38.71
     Model |  .004957786     16  .000309862   Prob > F      =   0.0000
  Residual |  .000632298     79  8.0038e-06   R-squared     =   0.8869
-------------+----------------------------------   Adj R-squared =   0.8640
     Total |  .005590084     95  .000058843   Root MSE      =   .00283
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------
   lnemp1000 |
        LD. | -.1712383  .1090639   -1.57  0.120   -.3883247    .045848
       L2D. |  .0050474  .1029185    0.05  0.961   -.1998068   .2099015
       L3D. | -.0670072  .0971038   -0.69  0.492   -.2602876   .1262731
             |
lnavg_Week~a |
       L2D. | -.0838816  .0248401   -3.38  0.001   -.1333246  -.0344386
             |
lnavg_Week~r |
        LD. | -.1151557  .0336656   -3.42  0.001   -.1821654  -.0481461
             |
          m2 |  .0223269  .0027306    8.18  0.000    .0168918    .027762
```

```
       m3 |   .0233484   .0033023    7.07   0.000     .0167753    .0299214

       m4 |   .0172059   .0029463    5.84   0.000     .0113414    .0230705

       m5 |   .0185353   .0015123   12.26   0.000     .0155251    .0215454

       m6 |   .0161611   .0017905    9.03   0.000     .0125972     .019725

       m7 |   .0127091   .0019153    6.64   0.000     .0088968    .0165215

       m8 |   .0172485   .0021123    8.17   0.000      .013044    .0214529

       m9 |   .0136051   .0023152    5.88   0.000     .0089969    .0182133

      m10 |   .0243044   .0022522   10.79   0.000     .0198215    .0287872

      m11 |   .0283828   .0021401   13.26   0.000      .024123    .0326425

      m12 |   .0191173   .0020039    9.54   0.000     .0151286     .023106

     _cons |  -.0137405   .0021287   -6.45   0.000    -.0179775   -.0095034
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS           df       MS      Number of obs   =        96
-------------+----------------------------------   F(16, 79)       =     37.98
       Model |  .004928214        16  .000308013   Prob > F        =    0.0000
    Residual |  .000640742        79  8.1107e-06   R-squared       =    0.8849
-------------+----------------------------------   Adj R-squared   =    0.8616
       Total |  .005568956        95  .000058621   Root MSE        =    .00285
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------

   lnemp1000 |
```

```
       LD. |  -.1918696   .1204761   -1.59  0.115   -.4316712    .0479321

      L2D. |   .0171648   .1031125    0.17  0.868   -.1880755    .2224052

      L3D. |  -.0702942   .0977668   -0.72  0.474   -.2648942    .1243058

           |

lnavg_Week~a |

      L2D. |  -.0827036   .0249797   -3.31  0.001   -.1324245   -.0329827

           |

lnavg_Week~r |

       LD. |  -.1064486   .0355931   -2.99  0.004   -.1772948   -.0356024

           |

        m2 |   .0221049   .0028682    7.71  0.000    .0163959    .0278139

        m3 |   .0237762   .0033346    7.13  0.000    .0171389    .0304134

        m4 |   .0172226   .0029689    5.80  0.000    .0113133    .023132

        m5 |   .0186355   .0015217   12.25  0.000    .0156065    .0216644

        m6 |   .0163315   .0018036    9.05  0.000    .0127414    .0199215

        m7 |   .0127551   .0019284    6.61  0.000    .0089167    .0165936

        m8 |   .0172706   .0021337    8.09  0.000    .0130235    .0215177

        m9 |   .0137974   .0023278    5.93  0.000    .009164     .0184309

       m10 |   .0243845   .0022662   10.76  0.000    .0198737    .0288954

       m11 |   .0283906   .0022668   12.52  0.000    .0238787    .0329025

       m12 |   .0193098   .0020675    9.34  0.000    .0151945    .0234251

     _cons |  -.013812    .0021435   -6.44  0.000   -.0180786   -.0095454
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |      SS         df      MS        Number of obs  =       96
-------------+--------------------------------    F(16, 79)      =    37.29
       Model |  .00492135      16  .000307584     Prob > F       =   0.0000
    Residual |  .000651691     79  8.2492e-06     R-squared      =   0.8831
-------------+--------------------------------    Adj R-squared  =   0.8594
       Total |  .00557304      95  .000058664     Root MSE       =   .00287
```

```
------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
    lnemp1000 |
         LD. | -.1827835   .1212492   -1.51   0.136   -.424124    .058557
        L2D. |  .0312283   .110004     0.28   0.777   -.1877292   .2501857
        L3D. | -.0567808   .0979014   -0.58   0.564   -.2516487   .138087
             |
 lnavg_Week~a |
        L2D. | -.081483    .0254618   -3.20   0.002   -.1321635  -.0308025
             |
 lnavg_Week~r |
         LD. | -.1044907   .0361876   -2.89   0.005   -.1765202  -.0324611
             |
          m2 |  .0223854   .0029078    7.70   0.000    .0165976   .0281732
          m3 |  .0241822   .0034894    6.93   0.000    .0172369   .0311276
          m4 |  .0175533   .0029807    5.89   0.000    .0116203   .0234863
          m5 |  .0187172   .0015481   12.09   0.000    .0156357   .0217987
          m6 |  .0165115   .0018517    8.92   0.000    .0128257   .0201972
          m7 |  .0129901   .0019542    6.65   0.000    .0091003   .0168799
          m8 |  .0175464   .0021766    8.06   0.000    .013214    .0218789
```

```
   m9 |   .0141155   .0023922    5.90   0.000    .0093538   .0188771

  m10 |   .0247212   .0022958   10.77   0.000    .0201516   .0292908

  m11 |   .0285824   .0023251   12.29   0.000    .0239544   .0332105

  m12 |    .018869   .0020914    9.02   0.000    .0147063   .0230318

 _cons |  -.0141532   .0021883   -6.47   0.000    -.018509  -.0097974
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df     MS      Number of obs  =       96
-------------+----------------------------------   F(16, 79)     =    36.90
     Model |  .004848498      16  .000303031   Prob > F      =   0.0000

   Residual |  .000648691      79  8.2113e-06   R-squared     =   0.8820
-------------+----------------------------------   Adj R-squared  =   0.8581
     Total |   .00549719      95  .000057865   Root MSE      =   .00287
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |

     LD. |  -.1848735   .1205232   -1.53   0.129    -.424769   .0550219

    L2D. |   .0189167   .1097686    0.17   0.864   -.1995722   .2374057

    L3D. |  -.0841857   .1035654   -0.81   0.419   -.2903275   .1219561

        |

lnavg_Week~a |

    L2D. |  -.0830677   .0254978   -3.26   0.002   -.1338198  -.0323155
```

```
            |
lnavg_Week~r |
      LD. |  -.1061798   .0362061   -2.93   0.004   -.1782463   -.0341134
            |
       m2 |   .0218029   .0028523    7.64   0.000    .0161255    .0274803
       m3 |   .0232014   .0035597    6.52   0.000     .016116    .0302867
       m4 |   .0163767   .0032222    5.08   0.000    .0099631    .0227903
       m5 |   .0181819   .0015558   11.69   0.000    .0150852    .0212787
       m6 |   .0158265   .0018994    8.33   0.000    .0120458    .0196071
       m7 |   .0122058   .0020288    6.02   0.000    .0081676    .0162441
       m8 |   .0167627   .0022203    7.55   0.000    .0123432    .0211821
       m9 |   .0132322   .0024818    5.33   0.000    .0082922    .0181721
      m10 |   .0237947   .0024111    9.87   0.000    .0189956    .0285939
      m11 |   .0277842   .0024187   11.49   0.000    .0229699    .0325985
      m12 |   .0181157   .0022183    8.17   0.000    .0137003    .0225311
     _cons |  -.0132428   .0022871   -5.79   0.000   -.0177952   -.0086904
-------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |       SS         df       MS        Number of obs  =       96
-------------+----------------------------------   F(16, 79)      =    36.31
    Model |  .004823583       16  .000301474   Prob > F       =   0.0000
  Residual |  .000655971       79  8.3034e-06   R-squared      =   0.8803
-------------+----------------------------------   Adj R-squared  =   0.8560
    Total |  .005479554       95   .00005768   Root MSE       =   .00288
```

```
--------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
   lnemp1000 |
        LD. | -.1966274   .120898   -1.63   0.108   -.4372688    .044014
       L2D. |  .0296429  .1101249    0.27   0.788   -.1895552   .2488411
       L3D. | -.0738875  .1037233   -0.71   0.478   -.2803436   .1325686
             |
lnavg_Week~a |
       L2D. | -.0838577  .0256799   -3.27   0.002   -.1349722  -.0327432
             |
lnavg_Week~r |
        LD. | -.1031115   .036308   -2.84   0.006   -.1753808  -.0308422
             |
         m2 |  .0215342  .0028557    7.54   0.000      .01585   .0272184
         m3 |  .0236585  .0035628    6.64   0.000    .0165669   .0307502
         m4 |  .0167212  .0032261    5.18   0.000    .0102998   .0231426
         m5 |  .0182614  .0015632   11.68   0.000    .0151499   .0213729
         m6 |  .0160073  .0019046    8.40   0.000    .0122162   .0197984
         m7 |  .0123618  .0020357    6.07   0.000    .0083099   .0164137
         m8 |  .0169089  .0022295    7.58   0.000    .0124713   .0213465
         m9 |  .0135038   .002486    5.43   0.000    .0085556    .018452
        m10 |  .0240109  .0024172    9.93   0.000    .0191996   .0288221
        m11 |  .0281067  .0024193   11.62   0.000    .0232914   .0329221
        m12 |  .0183511  .0022219    8.26   0.000    .0139286   .0227736
       _cons | -.0134623  .0022924   -5.87   0.000   -.0180253  -.0088994
--------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					$F(16, 79)$	=	27.16
Model	.004687479	16	.000292967		Prob > F	=	0.0000
Residual	.000852104	79	.000010786		R-squared	=	0.8462
					Adj R-squared	=	0.8150
Total	.005539584	95	.000058311		Root MSE	=	.00328

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	-.1027852	.1360518	-0.76	0.452	-.3735894	.1680191
L2D.	.0096928	.1254633	0.08	0.939	-.2400357	.2594214
L3D.	-.0541381	.1181279	-0.46	0.648	-.2892657	.1809895
lnavg_Week~a						
L2D.	-.0647963	.0289267	-2.24	0.028	-.1223734	-.0072193
lnavg_Week~r						
LD.	-.1153501	.0414758	-2.78	0.007	-.1979057	-.0327945
m2	.022939	.0032397	7.08	0.000	.0164906	.0293875
m3	.020428	.0040185	5.08	0.000	.0124294	.0284266

```
   m4 |  .0167803   .0036769    4.56   0.000    .0094616    .024099

   m5 |  .0181447   .0017818   10.18   0.000     .014598   .0216913

   m6 |  .0157175   .0021705    7.24   0.000    .0113973   .0200377

   m7 |  .0126119   .0023197    5.44   0.000    .0079947   .0172291

   m8 |  .0172192   .0025406    6.78   0.000    .0121623   .0222761

   m9 |  .0133129    .002834    4.70   0.000    .0076719   .0189538

  m10 |  .0243456   .0027551    8.84   0.000    .0188616   .0298296

  m11 |  .0271995   .0027491    9.89   0.000    .0217275   .0326716

  m12 |  .0177495   .0025284    7.02   0.000    .0127168   .0227822

 _cons | -.013729   .0026128   -5.25   0.000   -.0189296  -.0085284
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS          df      MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)     =    3.47
    Model |  .015591368      16  .000974461   Prob > F      =   0.0001
  Residual |  .022187348      79  .000280853   R-squared     =   0.4127
-------------+----------------------------------   Adj R-squared =   0.2938
    Total |  .037778717      95  .000397671   Root MSE      =   .01676
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
  lnemp1000 |

       LD. |  2.635478   .6265607    4.21   0.000    1.388341   3.882616
```

```
    L2D. |  1.320261   .6223371    2.12   0.037    .0815303   2.558992
    L3D. |  -.1658846  .6028681   -0.28   0.784   -1.365863   1.034094
         |

lnavg_Week~a |
    L2D. |  -.3231218  .1468816   -2.20   0.031   -.6154824  -.0307612
         |

lnavg_Week~r |
     LD. |  -.4830345  .2086824   -2.31   0.023   -.8984064  -.0676626
         |
      m2 |   .0811882  .0152101    5.34   0.000    .0509132   .1114632
      m3 |   .0345262  .0204534    1.69   0.095   -.0061852   .0752376
      m4 |  -.0104755  .0185588   -0.56   0.574   -.0474158   .0264648
      m5 |   .0219281  .0090832    2.41   0.018    .0038484   .0400078
      m6 |   .0214255  .0110591    1.94   0.056   -.0005871    .043438
      m7 |   .0235375   .011771    2.00   0.049    .0001079  .0469671
      m8 |   .0405934  .0126875    3.20   0.002    .0153396  .0658473
      m9 |   .0257085  .0143938    1.79   0.078   -.0029417  .0543588
     m10 |   .0384271  .0139666    2.75   0.007    .0106272   .066227
     m11 |   .0177759  .0140168    1.27   0.208   -.0101239  .0456757
     m12 |  -.0089334  .0125843   -0.71   0.480   -.0339818  .0161149
   _cons |   -.033385  .0131403   -2.54   0.013   -.0595401 -.0072299
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS           df      MS      Number of obs  =       96
```

```
------------+------------------------------  F(16, 79)     =    2.60

    Model |  .013796405     16  .000862275  Prob > F     =   0.0026

  Residual |  .026155231     79  .000331079  R-squared    =   0.3453

------------+------------------------------  Adj R-squared =   0.2127

    Total |  .039951636     95  .000420544  Root MSE     =    .0182
```

```
--------------------------------------------------------------------------

  D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]

------------+-------------------------------------------------------------

    lnemp1000 |

        LD. |  .311774   .1209996   2.58  0.012   .0709303  .5526178

       L2D. |  .8229271  .6642806   1.24  0.219  -.4992904  2.145145

       L3D. | -.2369798   .654314  -0.36  0.718  -1.539359    1.0654

            |

 lnavg_Week~a |

       L2D. | -.3776268  .1586969  -2.38  0.020   -.693505 -.0617485

            |

 lnavg_Week~r |

        LD. |  -.151738  .2060042  -0.74  0.464  -.5617792  .2583032

            |

         m2 |  .0375197  .0106594   3.52  0.001   .0163027  .0587367

         m3 |  .0360005  .0223057   1.61  0.111  -.0083979   .080399

         m4 | -.0073395  .0201297  -0.36  0.716  -.0474066  .0327277

         m5 |  .0230593  .0102758   2.24  0.028   .0026059  .0435128

         m6 |  .0216477  .0120312   1.80  0.076  -.0022999  .0455953

         m7 |  .0159052   .012596   1.26  0.210  -.0091665  .0409769

         m8 |  .0259172  .0131158   1.98  0.052  -.0001891  .0520234

         m9 |  .0217828  .0156182   1.39  0.167  -.0093044  .0528701
```

```
    m10 |   .028837  .0149171   1.93  0.057   -.0008548  .0585289

    m11 |  .0318062  .0147212   2.16  0.034    .0025044  .0611079

    m12 |  .0114941  .0123283   0.93  0.354   -.0130448   .036033

   _cons | -.0212832  .0138472  -1.54  0.128   -.0488454   .006279
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS         df     MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)     =    2.56
     Model |  .014018959      16 .000876185   Prob > F       =   0.0032
  Residual |  .027077219      79  .00034275   R-squared      =   0.3411
-------------+----------------------------------   Adj R-squared  =  0.2077
     Total |  .041096177      95 .000432591   Root MSE       =   .01851
```

```
 D.lnemp1000 |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
  lnemp1000 |

        LD. |  .387154  .1144086   3.38  0.001    .1594295  .6148785

       L2D. | -.2739283  .1262979  -2.17  0.033   -.525318  -.0225387

       L3D. | -.6446897  .6283481  -1.03  0.308  -1.895385   .6060059
            |
lnavg_Week~a |

       L2D. | -.3214596  .1578759  -2.04  0.045   -.6357038  -.0072154
            |
```

lnavg_Week~r |

LD.	-.1750006	.209653	-0.83	0.406	-.5923045	.2423032
m2	.0289788	.0095263	3.04	0.003	.0100172	.0479404
m3	.0029924	.0110017	0.27	0.786	-.018906	.0248908
m4	-.020364	.0191327	-1.06	0.290	-.0584466	.0177186
m5	.0164233	.0096528	1.70	0.093	-.0027901	.0356367
m6	.0098123	.0105344	0.93	0.354	-.011156	.0307805
m7	.004198	.0107727	0.39	0.698	-.0172445	.0256405
m8	.0118874	.0103745	1.15	0.255	-.0087625	.0325372
m9	.0031071	.0112824	0.28	0.784	-.01935	.0255643
m10	.0143822	.0125233	1.15	0.254	-.0105448	.0393093
m11	.014369	.0107407	1.34	0.185	-.0070097	.0357477
m12	.0059073	.0121567	0.49	0.628	-.0182901	.0301047
_cons	-.0040974	.0096762	-0.42	0.673	-.0233575	.0151626

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(16, 79)	=	2.59
Model	.014348362	16	.000896773		Prob > F	=	0.0028
Residual	.027393007	79	.000346747		R-squared	=	0.3437
					Adj R-squared	=	0.2108
Total	.041741369	95	.000439383		Root MSE	=	.01862

```
--------------------------------------------------------------------------------
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------------
  lnemp1000 |
        LD. |  .3684331   .113492    3.25   0.002    .1425329    .5943333
       L2D. | -.3016574   .123984   -2.43   0.017   -.5484413   -.0548735
       L3D. | -.0348283   .1195899  -0.29   0.772    -.272866    .2032095
            |
lnavg_Week~a |
       L2D. | -.3136924   .1587867  -1.98   0.052   -.6297495    .0023646
            |
lnavg_Week~r |
        LD. |   -.16294   .2105389  -0.77   0.441   -.5820072    .2561272
            |
         m2 |  .0284988   .0095692   2.98   0.004    .0094517    .0475459
         m3 |  .0077697   .0099282   0.78   0.436   -.0119919    .0275313
         m4 | -.0041107   .0098776  -0.42   0.678   -.0237716    .0155503
         m5 |   .016728   .0097037   1.72   0.089   -.0025868    .0360428
         m6 |  .0132465   .0100005   1.32   0.189   -.0066591     .033152
         m7 |  .0095459   .0099708   0.96   0.341   -.0103005    .0293923
         m8 |  .0163282   .0094044   1.74   0.086   -.0023908    .0350472
         m9 |  .0090151    .009623   0.94   0.352   -.0101389    .0281691
        m10 |  .0222269   .0097368   2.28   0.025    .0028463    .0416076
        m11 |  .0194005   .0095098   2.04   0.045    .0004717    .0383294
        m12 |  .0135263   .0094546   1.43   0.156   -.0052926    .0323452
       _cons| -.0108792   .0068522  -1.59   0.116   -.0245182    .0027598
--------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS			
Model	.014473536	16	.000904596			
Residual	.027385508	79	.000346652			
Total	.041859044	95	.000440622			

Number of obs = 96
F(16, 79)   =   2.61
Prob > F   =   0.0026
R-squared   =   0.3458
Adj R-squared =   0.2133
Root MSE   =   .01862

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	.3679449	.1135247	3.24	0.002	.1419797	.5939102
L2D.	-.2992493	.1209136	-2.47	0.015	-.5399217	-.0585768
L3D.	-.0380084	.1135551	-0.33	0.739	-.2640342	.1880174
lnavg_Week~a						
L2D.	-.3146085	.1582076	-1.99	0.050	-.6295129	.0002958
lnavg_Week~r						
LD.	-.1593654	.2109279	-0.76	0.452	-.5792069	.260476
m2	.0285349	.009562	2.98	0.004	.0095023	.0475676
m3	.0077845	.0099234	0.78	0.435	-.0119676	.0275366
m4	-.0041702	.0098432	-0.42	0.673	-.0237625	.0154222

```
    m5 |  .0167524  .0097004   1.73  0.088   -.0025556  .0360605

    m6 |  .0133129  .009977    1.33  0.186   -.0065458  .0331716

    m7 |  .0094846  .0099351   0.95  0.343   -.0102907  .0292599

    m8 |  .0169007  .0094475   1.79  0.077   -.0019041  .0357054

    m9 |  .0090417  .0096224   0.94  0.350   -.0101111  .0281945

   m10 |  .0222378  .0097348   2.28  0.025    .0028611  .0416144

   m11 |  .0194076  .0095086   2.04  0.045    .0004812  .0383341

   m12 |    .0135   .0094425   1.43  0.157   -.0052948  .0322948

  _cons |  -.010878  .0068505  -1.59  0.116   -.0245135  .0027575
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |     SS         df      MS      Number of obs  =      96
-------------+----------------------------------   F(16, 79)      =     2.59
    Model |  .01440508      16  .000900317   Prob > F       =    0.0028

  Residual |  .027454963     79  .000347531   R-squared      =    0.3441
-------------+----------------------------------   Adj R-squared  =    0.2113
    Total |  .041860042      95  .000440632   Root MSE       =    .01864
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |

       LD. |  .3681651  .1136692   3.24  0.002    .1419122   .594418

      L2D. |  -.2910575  .1203307  -2.42  0.018   -.5305698  -.0515451
```

```
    L3D. | -.0311054   .1128829   -0.28   0.784   -.2557931   .1935823
         |
lnavg_Week~a |
    L2D. | -.3129027   .1584095   -1.98   0.052    -.628209   .0024036
         |
lnavg_Week~r |
     LD. | -.1387337   .2112456   -0.66   0.513   -.5592077   .2817402
         |
     m2 |  .0287427   .0095712    3.00   0.004    .0096916   .0477938
     m3 |  .0079538   .0099295    0.80   0.426   -.0118104   .0277181
     m4 | -.0039165   .0098481   -0.40   0.692   -.0235187   .0156858
     m5 |  .0169778   .0097079    1.75   0.084   -.0023454   .0363009
     m6 |  .0136941   .0099733    1.37   0.174   -.0061573   .0335455
     m7 |  .0098568   .0099242    0.99   0.324   -.0098967   .0296104
     m8 |  .0171045   .0094534    1.81   0.074    -.001712   .0359209
     m9 |  .0098977   .0094796    1.04   0.300   -.0089709   .0287662
    m10 |  .0226156   .0097331    2.32   0.023    .0032423   .0419888
    m11 |  .0195682   .0095167    2.06   0.043    .0006257   .0385106
    m12 |  .0136343   .0094519    1.44   0.153   -.0051793   .0324479
   _cons | -.011125   .0068468   -1.62   0.108   -.0247533   .0025034
----------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS        df      MS      Number of obs  =      96
-------------+------------------------------   F(16, 79)     =     2.58
```

```
     Model |  .01435526        16 .000897204   Prob > F      =   0.0029

  Residual | .027489671        79 .000347971   R-squared     =   0.3431

------------+---------------------------------  Adj R-squared  =   0.2100

     Total | .041844931        95 .000440473   Root MSE       =  .01865
```

```
--------------------------------------------------------------------------------

 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]

------------+-------------------------------------------------------------------

  lnemp1000 |

     LD. |  .3698811   .1136628   3.25   0.002    .1436408    .5961213

     L2D. | -.2905556   .1203963  -2.41   0.018   -.5301985   -.0509128

     L3D. | -.0251882   .1118477  -0.23   0.822   -.2478154    .197439

        |

lnavg_Week~a |

     L2D. |  -.304938   .1566336  -1.95   0.055   -.6167094    .0068335

        |

lnavg_Week~r |

     LD. | -.1341765   .212499   -0.63  0.530    -.5571451   .2887921

        |

      m2 |  .0288008   .0095781   3.01   0.004     .009736    .0478656

      m3 |  .0080207   .0099337   0.81   0.422   -.0117518    .0277933

      m4 |  -.003818   .0098539  -0.39   0.699   -.0234318    .0157957

      m5 |  .0170869   .0097125   1.76   0.082   -.0022454    .0364192

      m6 |  .0137548   .0099792   1.38   0.172   -.0061083    .033618

      m7 |  .0100813   .0099122   1.02   0.312   -.0096485    .029811

      m8 |  .0172097   .0094561   1.82   0.073   -.0016121    .0360315

      m9 |  .0099665   .0094847   1.05   0.297   -.0089122    .0288453

     m10 |  .0243676   .0097417   2.50   0.014    .0049772    .043758
```

```
    m11 |  .0196106   .0095219    2.06   0.043    .0006576   .0385635
    m12 |  .0137088   .0094564    1.45   0.151   -.0051136   .0325312
   _cons | -.0112389   .0068455   -1.64   0.105   -.0248645   .0023866
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS        df       MS         Number of obs  =      96
-------------+----------------------------------    F(16, 79)      =     2.55
     Model | .014210186      16 .000888137    Prob > F       =    0.0032
  Residual | .027524481      79 .000348411    R-squared      =    0.3405
-------------+----------------------------------    Adj R-squared  =   0.2069
     Total | .041734668      95 .000439312    Root MSE       =   .01867
```

```
 D.lnemp1000 |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |
        LD. |  .3687746   .1137137    3.24   0.002    .1424331   .5951161
       L2D. | -.2899653    .120462   -2.41   0.018   -.5297389  -.0501916
       L3D. | -.0272594   .1117897   -0.24   0.808   -.2497712   .1952524
            |
lnavg_Week~a |
       L2D. | -.3001656   .1560125   -1.92   0.058   -.6107006   .0103694
            |
lnavg_Week~r |
```

```
    LD. | -.1235928   .2129827   -0.58   0.563   -.5475242    .3003386

        |

    m2 |  .0288504   .0095845    3.01   0.004    .0097729    .0479278

    m3 |  .0079903   .0099426    0.80   0.424     -.0118     .0277806

    m4 | -.0038764   .0098585   -0.39   0.695   -.0234994    .0157465

    m5 |  .0171553   .0097178    1.77   0.081   -.0021876    .0364982

    m6 |  .0137802   .0099855    1.38   0.171   -.0060954    .0336558

    m7 |  .0100656   .0099186    1.01   0.313   -.0096768     .029808

    m8 |  .0172184   .0094621    1.82   0.073   -.0016154    .0360522

    m9 |  .0100149   .0094902    1.06   0.295    -.008875    .0289048

   m10 |  .0244757   .0097504    2.51   0.014     .005068    .0438833

   m11 |  .0174986   .0095746    1.83   0.071   -.0015591    .0365563

   m12 |  .0137234   .0094625    1.45   0.151   -.0051111     .032558

  _cons | -.0112647   .0068495   -1.64   0.104   -.0248983    .0023688
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |     SS        df     MS      Number of obs  =      96
----------+--------------------------------   F(16, 79)     =     2.56
    Model |  .0142618      16 .000891363  Prob > F      =    0.0031
 Residual | .027475444     79  .00034779  R-squared     =    0.3417
----------+--------------------------------   Adj R-squared =    0.2084
    Total | .041737245     95 .000439339  Root MSE      =    .01865
```

```
 D.lnemp1000 |     Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |
         LD. |  .3699812   .1136016    3.26   0.002    .1438629   .5960996
        L2D. |  -.291915   .1204529   -2.42   0.018   -.5316705  -.0521596
        L3D. | -.0260112   .1117367   -0.23   0.817   -.2484175    .196395
             |
lnavg_Week~a |
        L2D. | -.3089566   .1574907   -1.96   0.053   -.6224339   .0045207
             |
lnavg_Week~r |
         LD. | -.1261928   .2127515   -0.59   0.555    -.549664   .2972785
             |
          m2 |  .0288452    .009576    3.01   0.003    .0097848   .0479057
          m3 |   .007911   .0099358    0.80   0.428   -.0118657   .0276877
          m4 | -.0037756   .0098534   -0.38   0.703   -.0233883   .0158371
          m5 |  .0171218   .0097096    1.76   0.082   -.0022047   .0364482
          m6 |  .0137501   .0099767    1.38   0.172   -.0061081   .0336084
          m7 |  .0100367   .0099095    1.01   0.314   -.0096877   .0297611
          m8 |  .0172098   .0094536    1.82   0.072    -.001607   .0360267
          m9 |  .0099765   .0094821    1.05   0.296    -.008897   .0288501
         m10 |  .0244596   .0097413    2.51   0.014    .0050701   .0438491
         m11 |  .0174301   .0095674    1.82   0.072   -.0016134   .0364736
         m12 |  .0146382   .0094425    1.55   0.125   -.0041567    .033433
        _cons | -.0112297   .0068437   -1.64   0.105   -.0248518   .0023924
-------------------------------------------------------------------------------
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df      MS       Number of obs  =       96
-------------+----------------------------------   F(16, 79)      =     2.56
     Model |  .014276508       16 .000892282   Prob > F      =    0.0031
  Residual |  .027484176       79 .000347901   R-squared     =    0.3419
-------------+----------------------------------   Adj R-squared  =    0.2086
     Total |  .041760683       95 .000439586   Root MSE      =    .01865
```

```
--------------------------------------------------------------------------------
 D.lnemp1000 |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
   lnemp1000 |
        LD. |  .3703744   .1136433    3.26   0.002    .1441731    .5965756
       L2D. | -.2920567   .1206169   -2.42   0.018   -.5321386   -.0519748
       L3D. | -.0258937   .1117683   -0.23   0.817   -.2483629    .1965755
            |
lnavg_Week~a |
       L2D. | -.3115726   .1584648   -1.97   0.053   -.6269889    .0038437
            |
lnavg_Week~r |
        LD. | -.1271883   .2129621   -0.60   0.552   -.5510788    .2967022
            |
         m2 |  .0292634   .0095647    3.06   0.003    .0102252    .0483015
         m3 |  .0083145   .0099025    0.84   0.404   -.0113959    .0280248
         m4 |  -.003336   .0098778   -0.34   0.736   -.0229974    .0163253
         m5 |  .0175304   .0096937    1.81   0.074   -.0017644    .0368251
```

```
    m6 |   .014169   .009943    1.43  0.158   -.0056221   .0339601
    m7 |  .0104424  .0098939    1.06  0.294   -.0092508   .0301356
    m8 |  .0176223  .0094474    1.87  0.066   -.0011822   .0364269
    m9 |  .0103833  .0094652    1.10  0.276   -.0084566   .0292232
   m10 |  .0248694  .0097268    2.56  0.012    .0055087   .0442301
   m11 |  .0178299  .0095457    1.87  0.065   -.0011703   .0368301
   m12 |  .0150561  .0094484    1.59  0.115   -.0037504   .0338626
  _cons | -.0116375  .0068183   -1.71  0.092    -.025209   .0019341
```

(1 real change made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

.

. gen res=d.lnemp1000-pred

(304 missing values generated)

.

. gen errsq=res^2

(304 missing values generated)

.

. summ errsq

```
   Variable |      Obs       Mean   Std. Dev.      Min        Max
-------------+--------------------------------------------------------
      errsq |       71     .003911   .0231299   4.21e-09   .1884714
```

.

. scalar RWrmse96=r(mean)^.5

.

. summ nobs

Variable	Obs	Mean	Std. Dev.	Min	Max
nobs	71	96	0	96	96

.

. scalar RWminobs96=r(min)

.

. scalar RWmaxobs96=r(max)

.

.

.

. scalar list

RWmaxobs96 =   96

RWminobs96 =   96

 RWrmse96 = .06253767

.

.

.

. *Forecast from selected model for dlnemp1000

.

.

.

. reg d.lnemp1000 l(1,2,3,6,12,24)d.lnemp1000 l(1,2,3)d.lnavg_WeekDolla m2 m3 m
> 4 m5 m6 m7 m8 m9 m10 m11 m12 if tin(2017m1,2021m2)

Source	SS	df	MS		Number of obs	=	50
					F(20, 29)	=	1.45
Model	.019663013	20	.000983151		Prob > F	=	0.1746
Residual	.019596079	29	.000675727		R-squared	=	0.5009
					Adj R-squared	=	0.1566
Total	.039259092	49	.000801206		Root MSE	=	.02599

D.lnemp1000	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnemp1000						
LD.	.4459355	.1797933	2.48	0.019	.0782169	.813654
L2D.	-.3370997	.1821163	-1.85	0.074	-.7095695	.03537
L3D.	-.0050609	.1807682	-0.03	0.978	-.3747734	.3646517
L6D.	-.0366874	.1663269	-0.22	0.827	-.3768641	.3034893
L12D.	.2680303	1.260662	0.21	0.833	-2.310312	2.846373
L24D.	1.183418	1.175877	1.01	0.323	-1.221521	3.588356
lnavg_Week~a						
LD.	.2558217	.3356501	0.76	0.452	-.4306599	.9423033

```
L2D. |  -.2915053   .333143   -0.88  0.389   -.9728592   .3898486
L3D. |   .5214174   .3245053   1.61  0.119   -.1422706   1.185105
     |
  m2 |   .0045991   .0529427    0.09  0.931   -.1036809   .1128791
  m3 |  -.0202474   .0440064   -0.46  0.649   -.1102505   .0697558
  m4 |  -.0442486   .0401704   -1.10  0.280   -.1264064   .0379092
  m5 |  -.0059608   .0407579   -0.15  0.885   -.0893201   .0773985
  m6 |   .0016741     .03756    0.04  0.965   -.0751447   .078493
  m7 |  -.0125861   .0351578   -0.36  0.723   -.0844919   .0593197
  m8 |   .0038361   .0397761    0.10  0.924   -.0775151   .0851874
  m9 |  -.0028343   .0311276   -0.09  0.928   -.0664973   .0608287
 m10 |  -.0034589   .0621359   -0.06  0.956    -.130541   .1236233
 m11 |  -.0224717   .0547133   -0.41  0.684    -.134373   .0894296
 m12 |   .0054867   .0386276    0.14  0.888   -.0735157   .0844891
_cons |   .0005123   .0322833    0.02  0.987   -.0655145   .0665392
------------------------------------------------------------------------------
```

.

. predict temp if date==tm(2021m3)

(option xb assumed; fitted values)

(374 missing values generated)

.

. replace pred=temp if date==tm(2021m3)

(1 real change made)

.

. *Empirical forecast and interval for dlnemp1000

.

. gen expres=exp(res)

(304 missing values generated)

.

. summ expres


```
    Variable |      Obs      Mean   Std. Dev.      Min      Max
-------------+---------------------------------------------------------
      expres |       71   1.007144   .0740928   .8345599   1.543624
```


.

. gen epy=exp(l.lnemp1000+pred)*r(mean)

(303 missing values generated)

.

. _pctile res, percentiles(2.5,97.5)

.

.

.

. gen eub=epy*exp(r(r2))

(303 missing values generated)

.

. gen elb=epy*exp(r(r1))

(303 missing values generated)

.

. twoway (scatter total_priv_emp1000 date if tin(2017m1,2021m2) , m(Oh)) (tsli

> ne epy eub elb if tin(2017m1,2021m3) , lpattern(solid dash dash) lcolor(black

> gs10 gs10)) , saving(ps5_fcst, replace) scheme(s1mono) ylabel(,grid) xtitle

> ("") legend(label(1 "Private Employment") label(2 "Forecast") label(3 "95% Up

> per Bound") label(4 "95% Lower Bound")) title("Florida Private Employment"

> "One Month Ahead Emprical Forecast")

(file ps5_fcst.gph saved)

.

.

.

. graph export ps5empfcst.emf, replace

(file C:\Users\Jing Jing\Desktop\Orlando Time Series Project\ps5empfcst.emf wri

> tten in Enhanced Metafile format)

.

.

.

. list epy eub elb if date==tm(2021m3)


```
     +------------------------------+
     |   epy      eub       elb |
     |------------------------------|
375. | 1047.894  1287.049  936.7554 |
     +------------------------------+
```

.

.

.

.

.

.

.

. *Normal forecast and interval for dlnemp1000

.

. * 2 sigma interval

.

. gen npy=exp(l.lnemp1000+pred+(RWrmse96^2)/2)

(303 missing values generated)

.

. gen nub=npy*exp(2*RWrmse96)

(303 missing values generated)

.

. gen nlb=npy/exp(2*RWrmse96)

(303 missing values generated)

.

.

.

.

.

.

.

.

.

. twoway (scatter total_priv_emp1000 date if tin(2017m1,2021m2) , m(Oh)) (tsli

> ne npy nub nlb if tin(2017m1,2021m3) , lpattern(solid dash dash) lcolor(black

> gs10 gs10)) , saving(ps5_fcst, replace) scheme(s1mono) ylabel(,grid) xtitle

> ("") legend(label(1 "private Employment") label(2 "Forecast") label(3 "95% Up

> per Bound") label(4 "95% Lower Bound")) title("Florida Private Employment" "

> One Month Ahead Normal Forecast") note("1) All forecasts are out of sample ba

> sed on a 96 month rolling window." "2) Inteval based on percentiles +-1.95 RM

> MSE from the rolling window procedure." "3) Predictors are lags 3, 4, 12, 24

> of private employment and lag 4 of the US emp:pop ratio.")

(file ps5_fcst.gph saved)

.

.

.

. graph export ps5normfcst.emf, replace

(file C:\Users\Jing Jing\Desktop\Orlando Time Series Project\ps5normfcst.emf wr

> itten in Enhanced Metafile format)

.

.

.

. list npy nub nlb if date==tm(2021m3)

```
   +------------------------------+
   |   npy      nub      nlb |
   |------------------------------|
375. | 1042.497   1181.393   919.9315 |
   +------------------------------+
```

.

.

.

.

.

. hist res, frac normal scheme(s1mono) title("Private Employment Empirical For
> ecast Error Distribution") xtitle("") note("Private Employment for March For
> 96 month rolling window forecasts.")
(bin=8, start=-.18085083, width=.07687297)

.

. graph export ps5errdist.emf , replace
(file C:\Users\Jing Jing\Desktop\Orlando Time Series Project\ps5errdist.emf wri
> tten in Enhanced Metafile format)

.

.

.

. summ res


```
    Variable |    Obs      Mean   Std. Dev.     Min      Max
-------------+--------------------------------------------------------
```

    res | 71   .0049691   .0627836 -.1808508   .434133

.

. gen nres=(res-r(mean))/r(sd)

(304 missing values generated)

.

.

.

. qnorm nres, scheme(s1mono) title("Private Employment Quantile-Normal Plot of

> Forecast Error") xtitle("Inverse Standard Normal of Residual Percentile") yt

> itle("Residual Z-Score") xlabel(-6(2)4,grid) ylabel(-6(2)4,grid) note("Privat

> e Employment for March For 96 month rolling window forecasts.")

.

. graph export ps5qnorm.emf , replace

(file C:\Users\Jing Jing\Desktop\Orlando Time Series Project\ps5qnorm.emf writt

> en in Enhanced Metafile format)

.

.

.

.

.

. *check the information

.

. _pctile res, percentiles(2.5,97.5)

.

. return list

scalars:

r(r1) = -.1121157556772232

r(r2) = .2055689990520477

.

. summarize date

Variable	Obs	Mean	Std. Dev.	Min	Max
date	375	547	108.3974	360	734

.

. summarize date if res>=.2055689990520477

Variable	Obs	Mean	Std. Dev.	Min	Max
date	306	513.1242	89.76591	360	734

.

. summarize date if res==.2055689990520477

Variable	Obs	Mean	Std. Dev.	Min	Max
date	0				

.

. summarize date if res==-.1121157556772232

Variable	Obs	Mean	Std. Dev.	Min	Max
date	1	726	.	726	726

.

. tsline res if tin(2019m6, 2021m1)

.

. ***
> **

.

. **** BEST SELECTION: GSREG Rank 13 for dlnavg_WeekDolla: RWrmse120 = .008623
> 17 since it is the 2nd smallest RWMSE and has more variables

.

.

.

.

.

. *Rolling window program for GSREG Rank 2 for dlnavg_WeekDolla

.

. scalar drop _all

.

.

.

. gen pred=.

variable pred already defined

r(110);

.

. gen nobs=.

variable nobs already defined

r(110);

.

. forvalues t=663/733 {

  2.

. gen wstart=`t'-96

  3.

. gen wend=`t'-1

  4.

. reg d.lnavg_WeekDolla ld.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_WeekHour

> m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if date>=wstart & date<=wend

  5.

. replace nobs=e(N) if date==`t'

  6.

. predict ptemp

  7.

. replace pred=ptemp if date==`t'

8.

. drop ptemp wstart wend

9.

. }

```
      Source |      SS         df      MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)    =    2.66
       Model | .011000201      14 .000785729   Prob > F     =   0.0031
    Residual | .023956865      81 .000295764   R-squared    =   0.3147
-------------+----------------------------------   Adj R-squared =   0.1962
       Total | .034957066      95 .000367969   Root MSE     =   .0172
```

```
D.           |
lnavg_Week~a |    Coef.  Std. Err.     t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. | -.3569649  .1050677   -3.40  0.001   -.5660167  -.1479131
             |
   lnemp1000 |
        L2D. |  .2147173  .4458025    0.48  0.631   -.6722899   1.101725
             |
lnavg_Week~r |
        L2D. | -.1673825  .1722509   -0.97  0.334   -.5101077   .1753427
             |
         m2 |  .0142568  .0097896    1.46  0.149   -.0052215   .0337351
         m3 |  .0243085  .0149003    1.63  0.107   -.0053384   .0539555
         m4 |  .0072797  .0087677    0.83  0.409   -.0101653   .0247248
```

```
m5 |   .0130612   .0090542    1.44  0.153   -.0049538    .0310763

m6 |   .0194787   .0096173    2.03  0.046    .0003433    .0386141

m7 |   .0228282   .0092861    2.46  0.016    .0043518    .0413047

m8 |   .0190693   .0096583    1.97  0.052   -.0001477    .0382862

m9 |   .0204963    .010539    1.94  0.055   -.0004731    .0414656

m10 |  .0236555   .0094726    2.50  0.015     .004808    .0425029

m11 |  .0281844    .009712    2.90  0.005    .0088607    .0475082

m12 |  .0359463    .008839    4.07  0.000    .0183595    .0535331

_cons | -.0171869   .0073693   -2.33  0.022   -.0318496   -.0025243
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS         df     MS      Number of obs  =      96
-------------+---------------------------------    F(14, 81)     =    2.69
    Model |  .011075972      14  .000791141   Prob > F       =   0.0028

  Residual |  .023842582      81  .000294353   R-squared      =   0.3172
-------------+---------------------------------    Adj R-squared =   0.1992

    Total |  .034918554      95  .000367564   Root MSE       =   .01716
```

```
D.         |

lnavg_Week~a |    Coef.   Std. Err.     t   P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------

lnavg_Week~a |

        LD. | -.3637593   .1052812   -3.46  0.001   -.5732359   -.1542827
```

```
           |
  lnemp1000 |
      L2D. |  .2044149  .4428814    0.46  0.646   -.6767802    1.08561
           |
lnavg_Week~r |
      L2D. | -.1633351  .1717074   -0.95  0.344    -.504979   .1783088
           |
        m2 |  .0139198  .0097711    1.42  0.158   -.0055217   .0333613
        m3 |  .0239636  .0148179    1.62  0.110   -.0055193   .0534465
        m4 |  .0078066  .0087146    0.90  0.373   -.0095328    .025146
        m5 |  .0128441  .0090367    1.42  0.159   -.0051362   .0308244
        m6 |  .0192769  .0095871    2.01  0.048    .0002016   .0383521
        m7 |  .0226825  .0092567    2.45  0.016    .0042645   .0411004
        m8 |  .0188862    .00963    1.96  0.053   -.0002744   .0380468
        m9 |  .0202343  .0105019    1.93  0.058   -.0006612   .0411298
       m10 |  .0234755  .0094437    2.49  0.015    .0046855   .0422655
       m11 |  .0280128  .0096799    2.89  0.005    .0087528   .0472728
       m12 |  .0358388  .0088178    4.06  0.000    .0182942   .0533834
      _cons |  -.016981  .0073449   -2.31  0.023    -.031595   -.002367
------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS          df     MS     Number of obs  =     96
-------------+---------------------------------  F(14, 81)     =    2.79
     Model |  .01129204      14  .000806574  Prob > F        =   0.0020
```

```
   Residual |  .023458519      81  .000289611   R-squared      =  0.3249
-------------+----------------------------------  Adj R-squared  =  0.2083
      Total |  .034750558      95  .000365795   Root MSE      =  .01702
```

```
--------------------------------------------------------------------------------
D.           |
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------------
lnavg_Week~a |
         LD. |  -.3739324   .1047045   -3.57   0.001   -.5822615   -.1656034
             |
   lnemp1000 |
        L2D. |   .2125915   .4392807    0.48   0.630   -.6614393   1.086622
             |
lnavg_Week~r |
        L2D. |   -.212146   .1755135   -1.21   0.230   -.5613628   .1370708
             |
          m2 |   .0137696   .0096924    1.42   0.159   -.0055152   .0330544
          m3 |   .0238563   .0146973    1.62   0.108   -.0053868   .0530994
          m4 |   .0078682   .0086442    0.91   0.365   -.0093309   .0250674
          m5 |   .0151254   .0089858    1.68   0.096   -.0027535   .0330043
          m6 |    .019135   .0095103    2.01   0.048    .0002124   .0380576
          m7 |   .0223433   .0091866    2.43   0.017    .0040649   .0406217
          m8 |   .0190531   .0095531    1.99   0.049    .0000454   .0380608
          m9 |   .0202559   .0104169    1.94   0.055   -.0004705   .0409824
         m10 |   .0233855   .0093677    2.50   0.015    .0047468   .0420242
         m11 |   .0279614   .0096017    2.91   0.005     .008857   .0470657
         m12 |   .0359916   .0087475    4.11   0.000    .0185869   .0533963
```

```
    _cons |  -.0169386   .0072856   -2.32   0.023   -.0314345   -.0024426
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df      MS       Number of obs  =       96
-------------+----------------------------------   F(14, 81)      =     2.74
     Model |  .011203348     14  .000800239   Prob > F      =    0.0023
  Residual |  .023627634     81  .000291699   R-squared     =    0.3216
-------------+----------------------------------   Adj R-squared  =    0.2044
     Total |  .034830982     95  .000366642   Root MSE      =    .01708
```

```
D.          |
lnavg_Week~a |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. |  -.3704757   .1052536   -3.52   0.001   -.5798975   -.161054
            |
  lnemp1000 |
       L2D. |   .1463271   .4324032    0.34   0.736   -.7140195   1.006674
            |
lnavg_Week~r |
       L2D. |  -.1997186   .1754413   -1.14   0.258   -.5487918   .1493547
            |
        m2 |   .0133924   .0097167    1.38   0.172   -.0059407   .0327255
```

```
     m3 |  .0221244   .0145771    1.52   0.133   -.0068793    .0511282
     m4 |  .0078017   .0086755    0.90   0.371   -.0094598    .0250632
     m5 |  .0149377   .0090165    1.66   0.101   -.0030022    .0328777
     m6 |  .0165279   .0093304    1.77   0.080   -.0020367    .0350924
     m7 |  .0219709   .0092067    2.39   0.019    .0036525    .0402893
     m8 |  .0183995   .0095491    1.93   0.058   -.0006002    .0373991
     m9 |  .019399    .0103938    1.87   0.066   -.0012814    .0400794
    m10 |  .0228611   .0093761    2.44   0.017    .0042055    .0415166
    m11 |  .0273329   .009601     2.85   0.006    .0082299    .0464359
    m12 |  .0356932   .0087702    4.07   0.000    .0182433    .0531432
   _cons | -.0163875   .0072759   -2.25   0.027   -.0308642   -.0019108
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df      MS       Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =    2.75
     Model | .011186664      14  .000799047   Prob > F      =   0.0023
  Residual | .023552252      81  .000290769   R-squared     =   0.3220
-------------+----------------------------------   Adj R-squared  =   0.2048
     Total | .034738916      95  .000365673   Root MSE      =   .01705
```

```
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
```

```
lnavg_Week~a |
        LD. | -.3719279  .1047706  -3.55  0.001  -.5803885  -.1634672
            |
  lnemp1000 |
       L2D. |  .1500606  .4275898   0.35  0.727   -.700709   1.00083
            |
lnavg_Week~r |
       L2D. | -.1836794  .1778734  -1.03  0.305  -.5375918   .1702329
            |
         m2 |  .0133092  .0097022   1.37  0.174  -.0059951   .0326136
         m3 |  .0222811  .0144711   1.54  0.128  -.0065119   .0510741
         m4 |   .007722  .0086627   0.89  0.375   -.009514   .0249579
         m5 |  .0148088  .0090053   1.64  0.104  -.0031089   .0327265
         m6 |  .0165837   .009308   1.78  0.079  -.0019362   .0351037
         m7 |  .0211356  .0090986   2.32  0.023   .0030321    .039239
         m8 |  .0183587  .0095226   1.93  0.057  -.0005882   .0373056
         m9 |  .0193968  .0103567   1.87  0.065  -.0012098   .0400033
        m10 |  .0228815  .0093523   2.45  0.017   .0042733   .0414897
        m11 |  .0273657  .0095716   2.86  0.005   .0083211   .0464102
        m12 |  .0356351  .0087554   4.07  0.000   .0182146   .0530556
       _cons | -.0163817  .0072536  -2.26  0.027  -.0308141  -.0019494
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df      MS      Number of obs  =      96
```

```
-------------+-------------------------------   F(14, 81)    =    2.71
      Model |  .011002869      14  .000785919   Prob > F     =   0.0026
   Residual |   .02351182      81  .000290269   R-squared    =   0.3188
-------------+-------------------------------   Adj R-squared =   0.2010
      Total |  .034514689      95  .000363313   Root MSE     =   .01704
```

```
-----------------------------------------------------------------------------
D.          |
lnavg_Week~a |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+---------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3659906   .1049714   -3.49   0.001   -.5748507   -.1571304
            |
  lnemp1000 |
       L2D. |  .1586086   .4257495    0.37   0.710   -.6884993   1.005717
            |
lnavg_Week~r |
       L2D. | -.1848341   .1772423   -1.04   0.300   -.5374907   .1678225
            |
         m2 |  .0135923   .009686     1.40   0.164   -.0056798   .0328644
         m3 |  .0225805   .0144256    1.57   0.121   -.0061219   .0512828
         m4 |  .0078163   .0086542    0.90   0.369   -.009403    .0250355
         m5 |  .0149898   .0089934    1.67   0.099   -.0029042   .0328839
         m6 |  .0167373   .009295     1.80   0.075   -.0017568   .0352314
         m7 |  .0212824   .0090877    2.34   0.022    .0032008   .0393641
         m8 |  .0211521   .0093634    2.26   0.027    .0025218   .0397824
         m9 |  .0196154   .0103311    1.90   0.061   -.0009403   .0401711
        m10 |   .023036   .0093373    2.47   0.016    .0044577   .0416143
```

```
    m11 |  .0275125  .009555   2.88  0.005   .008501   .0465239
    m12 |  .0357178  .0087446  4.08  0.000   .0183188  .0531167
   _cons | -.0165553  .0072362 -2.29  0.025  -.0309529 -.0021576
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df      MS     Number of obs  =      96
-------------+---------------------------------  F(14, 81)     =    2.97
     Model | .011216213      14 .000801158  Prob > F       =   0.0011
   Residual | .021860433      81 .000269882  R-squared      =   0.3391
-------------+---------------------------------  Adj R-squared  =   0.2249
     Total | .033076646      95 .000348175  Root MSE       =   .01643
```

```
D.            |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+---------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3504642  .1012826  -3.46  0.001  -.5519847 -.1489437
             |
  lnemp1000 |
       L2D. |  .1876374  .4096615   0.46  0.648  -.6274606  1.002735
             |
lnavg_Week~r |
       L2D. | -.2531218  .1712262  -1.48  0.143  -.5938082  .0875645
```

```
          |
      m2 |   .014605   .0093437    1.56   0.122    -.003986    .0331959
      m3 |  .0232601   .0138783    1.68   0.098   -.0043534    .0508736
      m4 |  .0083275   .0083473    1.00   0.321   -.0082811    .0249361
      m5 |  .0159041   .0086796    1.83   0.071   -.0013655    .0331737
      m6 |  .0170075   .0089548    1.90   0.061   -.0008099    .0348248
      m7 |   .021523   .0087564    2.46   0.016    .0041005    .0389454
      m8 |   .021694   .0090272    2.40   0.019    .0037327    .0396554
      m9 |  .0138588    .009767    1.42   0.160   -.0055745    .0332922
     m10 |  .0234672   .0089989    2.61   0.011    .0055622    .0413721
     m11 |  .0279241   .0092077    3.03   0.003    .0096037    .0462444
     m12 |  .0362184   .0084341    4.29   0.000    .0194371    .0529997
    _cons |  -.0171333    .006974   -2.46   0.016   -.0310095   -.0032572
---------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS          df       MS       Number of obs   =      96
-------------+----------------------------------   F(14, 81)       =     2.82
     Model |  .010761824       14  .000768702   Prob > F        =   0.0018
  Residual |  .022099621       81  .000272835   R-squared       =   0.3275
-------------+----------------------------------   Adj R-squared   =   0.2113
     Total |  .032861445       95   .00034591   Root MSE        =   .01652
```

```
---------------------------------------------------------------------------
   D.        |
```

```
lnavg_Week~a |      Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3302129   .1055205   -3.13   0.002   -.5401657   -.1202602
            |
   lnemp1000 |
       L2D. |  .1604931   .4118208    0.39   0.698   -.6589012    .9798874
            |
lnavg_Week~r |
       L2D. | -.2539798   .1723751   -1.47   0.145   -.5969523    .0889926
            |
         m2 |  .0151673   .0094367    1.61   0.112   -.0036087    .0339433
         m3 |  .0227428   .0139469    1.63   0.107   -.0050071    .0504927
         m4 |  .0085819   .008399     1.02   0.310   -.0081294    .0252932
         m5 |  .0163369   .0087461    1.87   0.065   -.001065     .0337389
         m6 |  .0170729   .0090085    1.90   0.062   -.0008511    .0349969
         m7 |  .0216582   .0088116    2.46   0.016    .0041258    .0391906
         m8 |  .0216632   .009077     2.39   0.019    .0036029    .0397236
         m9 |  .0137913   .0098207    1.40   0.164   -.0057489    .0333314
        m10 |  .022253    .0091331    2.44   0.017    .0040809    .0404251
        m11 |  .0278562   .009258     3.01   0.003    .0094356    .0462767
        m12 |  .0362551   .0084807    4.28   0.000    .0193812    .053129
       _cons | -.017217    .0070182   -2.45   0.016   -.0311812   -.0032529
-------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS          df       MS      Number of obs  =      96
-------------+----------------------------------  F(14, 81)      =     2.86
       Model | .010800181        14 .000771442    Prob > F       =   0.0015
    Residual | .021832669        81 .000269539    R-squared      =   0.3310
-------------+----------------------------------  Adj R-squared  =   0.2153
       Total | .03263285         95 .000343504    Root MSE       =   .01642
```

```
--------------------------------------------------------------------------------
D.           |
lnavg_Week~a |     Coef.  Std. Err.    t   P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
lnavg_Week~a |
         LD. | -.3225874  .1051602  -3.07  0.003   -.5318232  -.1133516
             |
   lnemp1000 |
        L2D. |  .2233459  .4070196   0.55  0.585   -.5864955   1.033187
             |
lnavg_Week~r |
        L2D. | -.2970729   .169785  -1.75  0.084   -.6348917   .0407459
             |
          m2 |  .0160365  .0093947   1.71  0.092    -.002656   .0347291
          m3 |  .0243741  .0138301   1.76  0.082   -.0031434   .0518917
          m4 |  .0089183  .0083508   1.07  0.289   -.0076971   .0255337
          m5 |  .0169899  .0087016   1.95  0.054   -.0003236   .0343033
          m6 |  .0175815  .0089551   1.96  0.053   -.0002363   .0353992
          m7 |  .0220721  .0087606   2.52  0.014    .0046412    .039503
          m8 |  .0223829  .0090181   2.48  0.015    .0044397    .040326
```

```
  m9 |   .01476   .009754   1.51  0.134   -.0046474   .0341673

 m10 |  .0229384  .0090819   2.53  0.013    .0048684   .0410085

 m11 |  .0278047  .0091028   3.05  0.003     .009693   .0459164

 m12 |  .0367398  .0084281   4.36  0.000    .0199705   .0535091

_cons | -.0179464   .006976  -2.57  0.012   -.0318265  -.0040663
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |     SS         df     MS     Number of obs  =     96
-------------+----------------------------   F(14, 81)    =    2.82
    Model |  .010554731      14 .000753909   Prob > F     =   0.0018
 Residual |  .021686004      81 .000267728   R-squared    =   0.3274
-------------+----------------------------   Adj R-squared =   0.2111
    Total |  .032240736      95 .000339376   Root MSE     =  .01636
```

```
D.           |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
        LD. | -.3759768  .1055399  -3.56  0.001   -.5859681  -.1659855
             |
  lnemp1000 |
        L2D. |  .1768227  .4025775   0.44  0.662   -.6241803   .9778256
             |
```

lnavg_Week~r |

    L2D. | -.2932596 .1691901 -1.73 0.087 -.6298947 .0433756

       |

     m2 | .0137253 .0093348   1.47 0.145 -.004848   .0322986

     m3 | .0224897   .01369   1.64 0.104 -.0047491 .0497285

     m4 | .0081261   .008322   0.98 0.332 -.0084321 .0246843

     m5 | .0154932 .0086656   1.79 0.078 -.0017486 .0327351

     m6 | .0164335   .008902   1.85 0.069 -.0012788 .0341457

     m7 | .0209344 .0087136   2.40 0.019   .003597   .0382717

     m8 | .0213999 .0089649   2.39 0.019   .0035624 .0392373

     m9 | .0134267 .0096803   1.39 0.169 -.0058341 .0326874

    m10 | .0214228 .0090225   2.37 0.020   .0034709 .0393747

    m11 | .0268827 .0090495   2.97 0.004   .008877   .0448885

    m12 | .0307077   .008341   3.68 0.000   .0141117 .0473037

   _cons | -.0166647 .0069164 -2.41 0.018 -.0304262 -.0029032

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

   Source | SS   df   MS   Number of obs =   96
-------------+--------------------------------- F(14, 81)   =   2.40
   Model | .008926845   14 .000637632 Prob > F   =   0.0073
  Residual | .021489207   81 .000265299 R-squared   =   0.2935
-------------+--------------------------------- Adj R-squared =   0.1714
   Total | .030416051   95 .000320169 Root MSE   =   .01629

```
--------------------------------------------------------------------------------
D.          |
lnavg_Week~a |     Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------------
lnavg_Week~a |
       LD. | -.3764476  .1038426  -3.63  0.001   -.5830618  -.1698335
           |
  lnemp1000 |
      L2D. |  .2119197   .399652    0.53  0.597   -.5832624   1.007102
           |
lnavg_Week~r |
      L2D. | -.2695207  .1689555  -1.60  0.115   -.6056892   .0666478
           |
        m2 |  .0107119  .0091099   1.18  0.243   -.0074139   .0288377
        m3 |  .0203975  .013647    1.49  0.139   -.0067558   .0475509
        m4 |  .0049015  .0082156   0.60  0.552   -.011445    .0212479
        m5 |  .0122723  .0084922   1.45  0.152   -.0046245   .0291691
        m6 |  .0136273  .008819    1.55  0.126   -.0039198   .0311743
        m7 |  .0180703  .0086156   2.10  0.039    .000928    .0352126
        m8 |  .0185106  .0089133   2.08  0.041    .000776    .0362452
        m9 |  .0106768  .0096216   1.11  0.270   -.0084671   .0298207
       m10 |  .0185531  .0089031   2.08  0.040    .0008387   .0362675
       m11 |  .0241227  .0090022   2.68  0.009    .0062112   .0420341
       m12 |  .0275703  .0082896   3.33  0.001    .0110766   .044064
      _cons |  -.01379   .0068261  -2.02  0.047   -.0273717  -.0002083
--------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df      MS      Number of obs  =      96
-------------+----------------------------------  F(14, 81)     =    2.36
     Model | .008747743      14 .000624839  Prob > F     =   0.0084
  Residual | .02142637       81 .000264523  R-squared    =   0.2899
-------------+----------------------------------  Adj R-squared  =   0.1672
     Total | .030174114      95 .000317622  Root MSE     =   .01626
```

```
-------------------------------------------------------------------------------
D.           |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+-----------------------------------------------------------
lnavg_Week~a |
        LD. | -.3714271  .1041781  -3.57  0.001   -.5787087  -.1641454
             |
  lnemp1000 |
       L2D. |  .2024578  .3977936   0.51  0.612   -.5890266   .9939422
             |
lnavg_Week~r |
       L2D. | -.2754879  .1690219  -1.63  0.107   -.6117885   .0608127
             |
         m2 |  .0090408  .008881    1.02  0.312   -.0086295   .0267112
         m3 |  .020142   .0135993   1.48  0.142   -.0069164   .0472004
         m4 |  .004958   .008204    0.60  0.547   -.0113653   .0212813
         m5 |  .0123821  .0084805   1.46  0.148   -.0044914   .0292556
         m6 |  .0135777  .0088011   1.54  0.127   -.0039338   .0310891
```

```
    m7 |  .0180424  .0085994   2.10  0.039   .0009323   .0351525

    m8 |  .0184617  .0088935   2.08  0.041   .0007664    .036157

    m9 |  .0106065  .0095952   1.11  0.272  -.0084849    .029698

   m10 |  .0185516  .0088832   2.09  0.040   .0008769   .0362264

   m11 |  .0240342   .008984   2.68  0.009   .0061589   .0419095

   m12 |  .0275732  .0082759   3.33  0.001   .0111067   .0440398

  _cons | -.0137653  .0068064  -2.02  0.046  -.0273078  -.0002227
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS         df       MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)    =     2.73
     Model | .009323067       14  .000665933   Prob > F       =   0.0024
  Residual | .019741953       81  .000243728   R-squared      =   0.3208
-------------+----------------------------------   Adj R-squared  =   0.2034
     Total | .02906502        95  .000305948   Root MSE       =   .01561
```

```
D.           |
lnavg_Week~a |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
         LD. | -.3979776  .1004462  -3.96  0.000  -.5978341   -.198121
             |
   lnemp1000 |
```

```
    L2D. |   .2260765   .3818204    0.59   0.555    -.5336263    .9857793
         |

lnavg_Week~r |
    L2D. |   -.307078   .1621914   -1.89   0.062    -.6297881    .015632
         |

      m2 |   .008507    .0085271    1.00   0.321    -.0084592    .0254732
      m3 |   .0149986   .0129858    1.16   0.251    -.010839     .0408362
      m4 |   .0048796   .0078746    0.62   0.537    -.0107884    .0205477
      m5 |   .0121283   .00814      1.49   0.140    -.0040677    .0283242
      m6 |   .0134363   .0084478    1.59   0.116    -.0033722    .0302448
      m7 |   .0178287   .0082546    2.16   0.034     .0014046    .0342528
      m8 |   .0185888   .0085368    2.18   0.032     .0016033    .0355743
      m9 |   .0107256   .0092101    1.16   0.248    -.0075996    .0290508
     m10 |   .0183256   .0085273    2.15   0.035     .0013591    .0352922
     m11 |   .0240706   .0086229    2.79   0.007     .0069138    .0412274
     m12 |   .0277138   .0079441    3.49   0.001     .0119075    .0435202
    _cons |  -.0137178   .0065333   -2.10   0.039    -.026717    -.0007187
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df     MS        Number of obs  =      96
-------------+---------------------------------    F(14, 81)      =    2.43
     Model |  .008114603     14 .000579614   Prob > F       =  0.0067
  Residual |  .019308864     81 .000238381   R-squared      =  0.2959
-------------+---------------------------------    Adj R-squared  =  0.1742
```

```
    Total |  .027423467      95  .000288668   Root MSE      =   .01544
```

```
D.         |
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3688511   .1016607   -3.63   0.000   -.5711241   -.1665781
            |
  lnemp1000 |
       L2D. |  .2344706   .3770469    0.62   0.536   -.5157345    .9846758
            |
lnavg_Week~r |
       L2D. | -.3006618   .1604708   -1.87   0.065   -.6199483    .0186247
            |
        m2 |  .0093355   .0084544    1.10   0.273   -.0074861    .026157
        m3 |  .0155241   .0128352    1.21   0.230   -.0100139    .0410622
        m4 |  .0079382   .0078432    1.01   0.315   -.0076674    .0235437
        m5 |  .0126904   .0080607    1.57   0.119   -.0033479    .0287287
        m6 |  .0137962   .0083571    1.65   0.103   -.0028319    .0304242
        m7 |   .018211   .0081673    2.23   0.029    .0019606    .0344615
        m8 |  .0188078    .008442    2.23   0.029    .002011     .0356047
        m9 |  .0110741   .0091081    1.22   0.228   -.0070481    .0291963
       m10 |  .0188604   .0084407    2.23   0.028    .0020661    .0356548
       m11 |  .0242838   .0085268    2.85   0.006    .0073182    .0412494
       m12 |  .0277873   .0078563    3.54   0.001    .0121557    .0434189
      _cons | -.0141065   .0064648   -2.18   0.032   -.0269695   -.0012435
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(14, 81)	=	2.40
Model	.00798228	14	.000570163		Prob > F	=	0.0074
Residual	.019247561	81	.000237624		R-squared	=	0.2931
					Adj R-squared	=	0.1710
Total	.027229841	95	.00028663		Root MSE	=	.01542

D. lnavg_Week~a	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnavg_Week~a						
LD.	-.3588543	.1033065	-3.47	0.001	-.5644019	-.1533068
lnemp1000						
L2D.	.2516329	.3779004	0.67	0.507	-.5002704	1.003536
lnavg_Week~r						
L2D.	-.3140704	.160368	-1.96	0.054	-.6331524	.0050115
m2	.0097234	.0084737	1.15	0.255	-.0071366	.0265833
m3	.0160327	.0128533	1.25	0.216	-.0095414	.0416068
m4	.008137	.0078389	1.04	0.302	-.00746	.023734

```
    m5 |  .0121954   .007916    1.54  0.127   -.0035549   .0279456

    m6 |  .0139938   .0083529   1.68  0.098   -.0026258   .0306134

    m7 |  .0183926   .0081622   2.25  0.027    .0021524   .0346328

    m8 |  .0190388   .0084399   2.26  0.027    .0022461   .0358315

    m9 |  .0113985   .0091146   1.25  0.215   -.0067368   .0295338

   m10 |  .0191628   .0084474   2.27  0.026    .0023551   .0359706

   m11 |  .0244516   .0085196   2.87  0.005    .0075002    .041403

   m12 |  .0279223   .0078472   3.56  0.001    .0123088   .0435359

  _cons | -.0143837   .0064763  -2.22  0.029   -.0272694  -.0014979
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |     SS         df     MS      Number of obs  =      96
-------------+---------------------------------   F(14, 81)     =    2.64
     Model |  .008399845     14  .000599989   Prob > F      =   0.0033
  Residual |  .018413549     81  .000227328   R-squared     =   0.3133
-------------+---------------------------------   Adj R-squared =   0.1946
     Total |  .026813394     95  .000282246   Root MSE      =   .01508
```

```
D.           |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
         LD. | -.3819698   .101686   -3.76  0.000   -.584293  -.1796465
```

```
           |
 lnemp1000 |
      L2D. |  .4875855   .3890748    1.25  0.214   -.2865513   1.261722
           |
lnavg_Week~r |
      L2D. | -.2743449   .1582174   -1.73  0.087   -.5891478    .040458
           |
        m2 |  .0106287   .0082981    1.28  0.204    -.005882   .0271394
        m3 |  .0224538   .0129972    1.73  0.088   -.0034065   .0483142
        m4 |  .0079056   .0076679    1.03  0.306   -.0073511   .0231622
        m5 |  .0123207   .0077421    1.59  0.115   -.0030836   .0277249
        m6 |  .0113852   .0079411    1.43  0.156   -.0044151   .0271855
        m7 |  .0198474   .0080174    2.48  0.015    .0038953   .0357995
        m8 |   .020983   .0083147    2.52  0.014    .0044394   .0375266
        m9 |  .0141746   .0090272    1.57  0.120   -.0037868   .0321359
       m10 |  .0208046   .0083034    2.51  0.014    .0042834   .0373257
       m11 |  .0267534   .0084165    3.18  0.002    .0100073   .0434995
       m12 |  .0285199   .0076813    3.71  0.000    .0132365   .0438033
     _cons | -.0162226   .0064028   -2.53  0.013   -.0289621  -.0034832
-------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS       df       MS       Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =     2.87
     Model |  .008836449     14  .000631175   Prob > F       =   0.0015
```

```
    Residual | .017811944      81 .000219901  R-squared     =   0.3316
-------------+--------------------------------  Adj R-squared =   0.2161
       Total | .026648393      95 .000280509  Root MSE      =   .01483
```

```
--------------------------------------------------------------------------------
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------------
lnavg_Week~a |
        LD. | -.4164321  .1018151   -4.09  0.000   -.6190122   -.2138521
            |
   lnemp1000 |
       L2D. |  .6085685  .3882154    1.57  0.121   -.1638584    1.380995
            |
lnavg_Week~r |
       L2D. | -.3190626  .1551261   -2.06  0.043   -.6277148   -.0104104
            |
         m2 |  .0105305  .0081616    1.29  0.201   -.0057087    .0267696
         m3 |  .0252722  .0128772    1.96  0.053   -.0003494    .0508937
         m4 |  .0077501   .007542    1.03  0.307   -.0072562    .0227564
         m5 |  .0122312  .0076146    1.61  0.112   -.0029194    .0273819
         m6 |  .0117428  .0078127    1.50  0.137    -.003802    .0272876
         m7 |  .0148802  .0078431    1.90  0.061   -.0007251    .0304855
         m8 |  .0219713  .0081939    2.68  0.009     .005668    .0382746
         m9 |  .0154936  .0089058    1.74  0.086    -.002226    .0332133
        m10 |  .0212774  .0081704    2.60  0.011    .0050208    .0375339
        m11 |  .0276638  .0082937    3.34  0.001     .011162    .0441656
        m12 |  .0290262  .0075581    3.84  0.000    .0139879    .0440645
```

```
    _cons |   -.01698   .0063096   -2.69   0.009   -.0295342   -.0044258
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |     SS         df      MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =    2.89
      Model |  .008870578      14  .000633613   Prob > F      =   0.0014
   Residual |  .017776829      81  .000219467   R-squared     =   0.3329
-------------+----------------------------------   Adj R-squared =   0.2176
      Total |  .026647408      95  .000280499   Root MSE      =   .01481
```

```
D.          |
lnavg_Week~a |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
         LD. |  -.420463   .1021709   -4.12   0.000   -.6237511   -.2171749
             |
   lnemp1000 |
        L2D. |  .6619746   .3936356    1.68   0.096   -.1212367    1.445186
             |
lnavg_Week~r |
        L2D. |  -.3353836   .1581605   -2.12   0.037   -.6500734   -.0206938
             |
          m2 |  .0107834   .0081485    1.32   0.189   -.0054296   .0269965
```

```
   m3 |   .0266335   .0129574    2.06   0.043    .0008524    .0524147

   m4 |   .0078131   .0075342    1.04   0.303   -.0071777    .0228039

   m5 |   .0123536   .0076063    1.62   0.108   -.0027806    .0274877

   m6 |   .0120205   .0078075    1.54   0.128   -.0035139     .027555

   m7 |   .0151069   .0078335    1.93   0.057   -.0004794    .0306931

   m8 |   .0196298   .0081093    2.42   0.018    .0034949    .0357648

   m9 |   .0161671   .0089314    1.81   0.074   -.0016036    .0339377

  m10 |   .0216642   .0081669    2.65   0.010    .0054147    .0379137

  m11 |    .028119   .0082994    3.39   0.001    .0116058    .0446323

  m12 |   .0292631   .0075581    3.87   0.000    .0142249    .0443013

 _cons |  -.0174336  .0063207   -2.76   0.007   -.0300097   -.0048574
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |     SS          df      MS        Number of obs  =      96
-------------+----------------------------------    F(14, 81)     =     2.88
     Model | .008856059      14  .000632576     Prob > F       =    0.0014

  Residual | .017780304      81  .00021951      R-squared     =    0.3325
-------------+----------------------------------    Adj R-squared  =   0.2171
     Total | .026636363      95  .000280383     Root MSE      =    .01482
```

```
D.         |

lnavg_Week~a |    Coef.   Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
```

```
lnavg_Week~a |
     LD. | -.4198367   .1020845   -4.11   0.000   -.6229528   -.2167206
         |
 lnemp1000 |
     L2D. |  .6528683   .3887047    1.68   0.097   -.1205321    1.426269
         |
lnavg_Week~r |
     L2D. | -.3341364   .1585177   -2.11   0.038    -.649537   -.0187358
         |
      m2 |  .0107396   .0081472    1.32   0.191   -.0054706    .0269499
      m3 |  .0263946   .0128648    2.05   0.043    .0007977    .0519915
      m4 |  .0078076   .0075349    1.04   0.303   -.0071844    .0227996
      m5 |  .0123363   .0076063    1.62   0.109   -.0027978    .0274705
      m6 |  .0119717   .0078029    1.53   0.129   -.0035535     .027497
      m7 |   .015064    .007832    1.92   0.058   -.0005192    .0306472
      m8 |  .0195606   .0080995    2.42   0.018    .0034451    .0356761
      m9 |  .0158117   .0086114    1.84   0.070   -.0013223    .0329458
     m10 |   .021597   .0081577    2.65   0.010    .0053658    .0378283
     m11 |  .0280369   .0082844    3.38   0.001    .0115536    .0445202
     m12 |  .0292286   .0075542    3.87   0.000    .0141981    .0442591
    _cons | -.017357   .0063013   -2.75   0.007   -.0298946   -.0048195
------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS          df      MS      Number of obs  =      96
```

```
-------------+-------------------------------  F(14, 81)     =    2.88

       Model |  .008851217     14  .00063223  Prob > F     =   0.0015

    Residual |  .017784746     81  .000219565  R-squared    =   0.3323

-------------+-------------------------------  Adj R-squared =   0.2169

       Total |  .026635963     95  .000280379  Root MSE     =   .01482
```

```
------------------------------------------------------------------------------
D.           |
lnavg_Week~a |      Coef.  Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. |  -.4194748  .1020686   -4.11   0.000   -.6225592   -.2163904
             |
    lnemp1000 |
        L2D. |   .6557306  .3921844    1.67   0.098   -.1245934    1.436055
             |
lnavg_Week~r |
        L2D. |  -.3332236  .1598966   -2.08   0.040   -.6513678   -.0150794
             |
          m2 |   .0107675  .0081525    1.32   0.190   -.0054534    .0269884
          m3 |   .0264802  .0129521    2.04   0.044    .0007095    .0522509
          m4 |   .0078114  .0075359    1.04   0.303   -.0071826    .0228055
          m5 |   .0123464  .0076072    1.62   0.108   -.0027895    .0274824
          m6 |   .0119936    .00781    1.54   0.129   -.0035457     .027533
          m7 |   .0150882  .0078398    1.92   0.058   -.0005104    .0306869
          m8 |    .01959    .008114    2.41   0.018    .0034458    .0357343
          m9 |   .0158455  .0086289    1.84   0.070   -.0013233    .0330143
         m10 |   .0218287  .0080578    2.71   0.008    .0057962    .0378613
```

```
  m11 |  .0280685  .0083037   3.38  0.001   .0115467   .0445904
  m12 |  .0292357  .0075557   3.87  0.000   .0142022   .0442691
 _cons | -.017386   .0063164  -2.75  0.007  -.0299537  -.0048182
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |    SS         df     MS     Number of obs  =      96
-------------+----------------------------------  F(14, 81)     =    2.64
    Model |  .00843015     14 .000602154  Prob > F     =  0.0033
 Residual |  .018474776     81 .000228084  R-squared    =  0.3133
-------------+----------------------------------  Adj R-squared  =  0.1946
    Total |  .026904926     95 .00028321  Root MSE     =  .0151
```

```
D.        |
lnavg_Week~a |   Coef.  Std. Err.   t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
      LD. | -.4208682  .1042038  -4.04  0.000  -.6282012  -.2135352
          |
  lnemp1000 |
      L2D. |  .634754   .4072774   1.56  0.123  -.1756002   1.445108
          |
lnavg_Week~r |
      L2D. | -.3431235  .1641868  -2.09  0.040  -.6698037  -.0164432
```

```
      |
  m2 |   .010599   .0083168    1.27   0.206   -.0059488   .0271467
  m3 |  .0258515   .0133508    1.94   0.056   -.0007125   .0524155
  m4 |  .0078124   .0076811    1.02   0.312   -.0074706   .0230953
  m5 |  .0123013   .0077552    1.59   0.117   -.0031291   .0277316
  m6 |  .0118444   .0079702    1.49   0.141   -.0040138   .0277026
  m7 |  .0149217   .0079971    1.87   0.066   -.0009901   .0308334
  m8 |  .0193787   .0082889    2.34   0.022    .0028864    .035871
  m9 |   .015615   .0088388    1.77   0.081   -.0019715   .0332015
 m10 |  .0216605   .0082303    2.63   0.010    .0052848   .0380362
 m11 |  .0225593   .0082177    2.75   0.007    .0062086     .03891
 m12 |  .0291991   .0077082    3.79   0.000    .0138622   .0445361
_cons | -.0171908   .0064713   -2.66   0.010   -.0300665   -.004315
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
  Source |      SS        df      MS      Number of obs  =     96
---------+----------------------------     F(14, 81)     =    2.34
   Model | .007751575     14 .000553684   Prob > F       =  0.0089
Residual | .019136052     81 .000236248   R-squared      =  0.2883
---------+----------------------------     Adj R-squared =  0.1653
   Total | .026887627     95 .000283028   Root MSE       =  .01537
```

```
D.       |
```

```
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3856552   .1047891   -3.68   0.000   -.5941526   -.1771579
            |
   lnemp1000 |
       L2D. |  .5997711   .4358425    1.38   0.173   -.2674187    1.466961
            |
lnavg_Week~r |
       L2D. | -.3003826   .1700432   -1.77   0.081   -.6387152    .0379499
            |
         m2 |  .0112825   .0084733    1.33   0.187   -.0055766    .0281417
         m3 |  .0253913   .0140166    1.81   0.074   -.0024972    .0532799
         m4 |  .0080673   .0078167    1.03   0.305   -.0074856    .0236201
         m5 |  .0126265   .0078947    1.60   0.114   -.0030814    .0283345
         m6 |  .0120235   .0081391    1.48   0.143   -.0041709    .0282178
         m7 |  .0153032   .0081536    1.88   0.064   -.0009198    .0315263
         m8 |  .0194832   .0084897    2.29   0.024    .0025914    .036375
         m9 |  .0154211   .0091232    1.69   0.095   -.0027312    .0335735
        m10 |  .0218716   .0084244    2.60   0.011    .0051097    .0386335
        m11 |  .0225963   .0084086    2.69   0.009    .0058658    .0393268
        m12 |  .0261625   .0077561    3.37   0.001    .0107303    .0415947
       _cons | -.0172198   .0066812   -2.58   0.012   -.0305134   -.0039263
------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |      SS        df      MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =     2.25
       Model | .006970973       14 .000497927   Prob > F      =    0.0124
    Residual | .017964487       81 .000221784   R-squared     =    0.2796
-------------+----------------------------------   Adj R-squared =    0.1550
       Total | .024935461       95 .000262479   Root MSE      =    .01489
```

```
--------------------------------------------------------------------------------
D.           |
lnavg_Week~a |     Coef.  Std. Err.    t   P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD.  | -.4212894  .1014413   -4.15  0.000   -.6231257  -.2194531
             |
   lnemp1000 |
        L2D. |  .2134055  .4458082    0.48  0.633    -.673613   1.100424
             |
lnavg_Week~r |
        L2D. |  -.380217  .1676313   -2.27  0.026   -.7137507  -.0466833
             |
          m2 | -.0013778  .0085805   -0.16  0.873   -.0184503   .0156947
          m3 |  .0049121  .0148621    0.33  0.742   -.0246588   .0344829
          m4 | -.0016741  .0076271   -0.22  0.827   -.0168495   .0135014
          m5 |  .0021097  .0077876    0.27  0.787   -.0133853   .0176047
          m6 | -8.43e-07   .008251   -0.00  1.000   -.0164178   .0164162
          m7 |  .0030919  .0082784    0.37  0.710   -.0133795   .0195633
          m8 |  .0064914   .008729    0.74  0.459   -.0108766   .0238593
```

```
   m9 |  .0016608   .009422    0.18  0.861   -.017086   .0204076
  m10 |  .0092357   .0085805   1.08  0.285   -.0078368  .0263081
  m11 |  .0098002   .0086492   1.13  0.261   -.007409   .0270094
  m12 |  .0159034   .0076667   2.07  0.041    .000649   .0311578
 _cons | -.0041923   .0070924  -0.59  0.556   -.0183041  .0099194
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)


```
    Source |      SS         df      MS       Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =     2.00
     Model |  .006312836      14  .000450917  Prob > F      =   0.0274
  Residual |  .018221874      81  .000224961  R-squared     =   0.2573
-------------+----------------------------------   Adj R-squared =   0.1289
     Total |  .024534711      95  .00025826   Root MSE      =    .015
```

```
D.           |
lnavg_Week~a |    Coef.   Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
         LD. | -.3929579   .1027174  -3.83  0.000   -.5973334  -.1885825
             |
  lnemp1000  |
        L2D. |  .2155553   .4512122   0.48  0.634   -.6822154  1.113326
             |
```

```
lnavg_Week~r |

    L2D. | -.3482299   .1692182   -2.06   0.043    -.684921   -.0115388

         |

     m2 |  .0010683   .0083546    0.13   0.899   -.0155548    .0176914

     m3 |  .0054762    .015068    0.36   0.717   -.0245044    .0354568

     m4 | -.0013176   .0076889   -0.17   0.864   -.0166161     .013981

     m5 |  .0025686    .007858    0.33   0.745   -.0130665    .0182036

     m6 |  .0004416   .0083364    0.05   0.958   -.0161453    .0170285

     m7 |  .0036878   .0083705    0.44   0.661   -.0129669    .0203425

     m8 |  .0069409   .0088261    0.79   0.434   -.0106202    .0245021

     m9 |  .0019679   .0095246    0.21   0.837   -.0169832    .0209189

    m10 |  .0097559   .0086777    1.12   0.264     -.00751    .0270219

    m11 |  .0101758     .00874    1.16   0.248    -.007214    .0275655

    m12 |  .0161804   .0077301    2.09   0.039       .0008    .0315608

   _cons | -.0046046    .007186   -0.64   0.523   -.0189026    .0096934

------------------------------------------------------------------------------

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)


   Source |      SS         df      MS      Number of obs  =       96
-------------+----------------------------------   F(14, 81)     =     1.99
    Model |  .006260517     14   .00044718   Prob > F      =    0.0282
  Residual |  .018158013     81   .000224173  R-squared     =    0.2564
-------------+----------------------------------   Adj R-squared =    0.1279
    Total |  .024418529     95   .000257037  Root MSE      =    .01497
```

```
--------------------------------------------------------------------------------
D.          |
lnavg_Week~a |      Coef.   Std. Err.     t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3847702   .1036757   -3.71   0.000   -.5910523   -.178488
            |
  lnemp1000 |
       L2D. |  .1386316   .4692968    0.30   0.768   -.7951219   1.072385
            |
lnavg_Week~r |
       L2D. | -.3674366   .1716244   -2.14   0.035   -.7089154  -.0259577
            |
         m2 |  .0006465   .0083653    0.08   0.939   -.0159978   .0172908
         m3 |  .0043615   .0147171    0.30   0.768   -.0249208   .0336439
         m4 | -.0014004   .0076755   -0.18   0.856   -.0166722   .0138715
         m5 |  .0023651   .0078491    0.30   0.764   -.0132521   .0179822
         m6 | -.0001474   .0083772   -0.02   0.986   -.0168155   .0165207
         m7 |  .0031108   .0084066    0.37   0.712   -.0136156   .0198373
         m8 |  .0061284   .0089133    0.69   0.494   -.0116062   .023863
         m9 |  .0010066   .0096443    0.10   0.917   -.0181826   .0201957
        m10 |   .009128   .0087218    1.05   0.298   -.0082256   .0264816
        m11 |  .0093196    .008842    1.05   0.295   -.0082732   .0269125
        m12 |  .0158785   .0077319    2.05   0.043    .0004945   .0312625
       _cons | -.0038268   .0072883   -0.53   0.601   -.0183283   .0106747
--------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS           df       MS      Number of obs  =       96
-------------+----------------------------------   F(14, 81)      =     1.97
       Model |  .006117931        14 .000436995    Prob > F       =   0.0310
    Residual |  .018005351        81 .000222288    R-squared      =   0.2536
-------------+----------------------------------   Adj R-squared  =   0.1246
       Total |  .024123282        95 .000253929    Root MSE       =   .01491
```

```
--------------------------------------------------------------------------------
          D. |
lnavg_Week~a |    Coef.  Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
lnavg_Week~a |
         LD. |  -.386776   .1032239   -3.75   0.000   -.5921592  -.1813928
             |
   lnemp1000 |
        L2D. |  -.1265548  .4918391   -0.26   0.798   -1.10516    .8520507
             |
lnavg_Week~r |
        L2D. |  -.3384516  .1717172   -1.97   0.052   -.6801149   .0032117
             |
          m2 |  -.001411   .0084103   -0.17   0.867   -.018145    .0153229
          m3 |  -.0028218  .0152272   -0.19   0.853   -.0331191   .0274756
          m4 |   .0039561  .0075792    0.52   0.603   -.011124    .0190362
          m5 |   .0011969  .007843     0.15   0.879   -.0144081   .0168019
          m6 |  -.002164   .0084207   -0.26   0.798   -.0189185   .0145905
```

m7	.0011837	.008442	0.14	0.889	-.0156133	.0179806
m8	.0035404	.0089986	0.39	0.695	-.014364	.0214448
m9	-.0024667	.0098087	-0.25	0.802	-.0219828	.0170495
m10	.0066294	.0088002	0.75	0.453	-.0108803	.0241391
m11	.0069309	.0089115	0.78	0.439	-.0108001	.024662
m12	.0148915	.0077197	1.93	0.057	-.0004683	.0302513
_cons	-.001006	.0074348	-0.14	0.893	-.0157988	.0137869

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs = 96
				F(14, 81) =	2.12
Model	.0065924	14	.000470886	Prob > F =	0.0187
Residual	.01797738	81	.000221943	R-squared =	0.2683
				Adj R-squared =	0.1418
Total	.02456978	95	.000258629	Root MSE =	.0149

D.					
lnavg_Week~a	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]
lnavg_Week~a					
LD.	-.4145359	.1026721	-4.04	0.000	-.6188211 -.2102507
lnemp1000					

```
    L2D. |  -.2252086   .5114157   -0.44   0.661   -1.242765    .7923482
         |
lnavg_Week~r |
    L2D. |  -.334717    .1713748   -1.95   0.054   -.6756991    .0062652
         |
      m2 |  -.0026817   .0085178   -0.31   0.754   -.0196296    .0142661
      m3 |  -.0058419   .0157608   -0.37   0.712   -.0372009    .0255171
      m4 |   .0034658   .0075821    0.46   0.649   -.0116203    .0185518
      m5 |   .0005914   .0076937    0.08   0.939   -.0147167    .0158995
      m6 |  -.0032349   .0085191   -0.38   0.705   -.0201852    .0137154
      m7 |   .0000377   .0085463    0.00   0.996   -.0169667    .0170421
      m8 |   .0022914   .0091403    0.25   0.803    -.015895    .0204777
      m9 |  -.0039996    .010009   -0.40   0.691   -.0239144    .0159152
     m10 |   .0052595   .0089433    0.59   0.558   -.0125349    .0230538
     m11 |   .0058749   .0090275    0.65   0.517   -.0120871    .0238369
     m12 |     .01433   .0077442    1.85   0.068   -.0010786    .0297386
    _cons |   .0003644   .0076311    0.05   0.962   -.0148191     .015548
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS         df     MS       Number of obs  =      96
----------+--------------------------------   F(14, 81)      =    2.14
    Model | .006601389      14 .000471528    Prob > F       =  0.0177
 Residual | .017863896      81 .000220542    R-squared      =  0.2698
----------+--------------------------------   Adj R-squared  =  0.1436
```

```
    Total |  .024465285      95  .000257529  Root MSE     =   .01485
```

```
D.          |
lnavg_Week~a |    Coef.  Std. Err.     t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
       LD. | -.4108305  .1016075   -4.04  0.000   -.6129976  -.2086634
           |
  lnemp1000 |
      L2D. | -.0718847   .541598   -0.13  0.895   -1.149495   1.005725
           |
lnavg_Week~r |
      L2D. | -.3313843  .1707938   -1.94  0.056   -.6712104   .0084418
           |
        m2 | -.0014517  .0085933   -0.17  0.866   -.0185497   .0156463
        m3 | -.0015985  .0164861   -0.10  0.923   -.0344008   .0312037
        m4 |  .0037372  .0075605    0.49  0.622   -.0113059   .0187803
        m5 |  .0011532  .0076929    0.15  0.881   -.0141532   .0164595
        m6 | -.0043124  .0083412   -0.52  0.607   -.0209088   .0122841
        m7 |  .0012945  .0086377    0.15  0.881   -.0158919   .0184809
        m8 |  .0039152  .0093078    0.42  0.675   -.0146044   .0224348
        m9 |  -.001948  .0102607   -0.19  0.850   -.0223634   .0184675
       m10 |  .0067756  .0090763    0.75  0.458   -.0112834   .0248346
       m11 |  .0074131  .0091858    0.81  0.422   -.0108638   .0256901
       m12 |  .0149701  .0077544    1.93  0.057   -.0004588    .030399
      _cons | -.0013381  .0078566   -0.17  0.865   -.0169702   .0142939
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS         df      MS      Number of obs  =       96
-------------+----------------------------------   F(14, 81)      =     2.12
       Model |  .006799778      14  .000485698   Prob > F       =    0.0188
    Residual |  .018555346      81  .000229078   R-squared      =    0.2682
-------------+----------------------------------   Adj R-squared  =    0.1417
       Total |  .025355124      95  .000266896   Root MSE       =    .01514
```

```
------------------------------------------------------------------------------
D.           |
lnavg_Week~a |      Coef.   Std. Err.      t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. |  -.4169725   .104753    -3.98   0.000    -.625398    -.208547
             |
   lnemp1000 |
        L2D. |  -.0269301   .5676875   -0.05   0.962    -1.15645    1.10259
             |
lnavg_Week~r |
        L2D. |  -.3363986   .1748599   -1.92   0.058    -.684315    .0115177
             |
          m2 |  -.0012247   .0087871   -0.14   0.889    -.0187082   .0162588
          m3 |  -.0004596   .0171393   -0.03   0.979    -.0345613   .0336422
          m4 |   .0037255   .0077055    0.48   0.630    -.011606    .0190569
```

```
  m5 |  .0012423  .0078455   0.16  0.875  -.0143677  .0168524

  m6 | -.0040992  .0085264  -0.48  0.632   -.021064  .0128656

  m7 |  .0040548  .0086974   0.47  0.642  -.0132503  .0213599

  m8 |  .0042935   .009553   0.45  0.654  -.0147141   .023301

  m9 | -.0014152  .0105775  -0.13  0.894  -.0224611  .0196306

 m10 |  .0070959   .009302   0.76  0.448  -.0114121  .0256039

 m11 |  .0077894  .0094271   0.83  0.411  -.0109676  .0265465

 m12 |   .015095  .0079122   1.91  0.060  -.0006477  .0308377

_cons | -.0017427  .0080989  -0.22  0.830  -.0178571  .0143717
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |     SS        df      MS      Number of obs  =     96
-------------+---------------------------------   F(14, 81)     =   2.15
     Model | .006899596     14 .000492828  Prob > F      =  0.0168
   Residual | .018539049     81 .000228877  R-squared     =  0.2712
-------------+---------------------------------   Adj R-squared =  0.1453
     Total | .025438645     95 .000267775  Root MSE      =  .01513
```

```
D.         |
lnavg_Week~a |   Coef.  Std. Err.    t  P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
      LD. | -.4162134  .1031125  -4.04  0.000  -.6213749  -.2110519
```

```
             |
  lnemp1000 |
       L2D. |  .0290588    .596381    0.05   0.961   -1.157552    1.21567
             |
lnavg_Week~r |
       L2D. | -.3446546   .1774711   -1.94   0.056   -.6977664   .0084573
             |
         m2 | -.0007832   .0088675   -0.09   0.930   -.0184268   .0168603
         m3 |  .0010548   .0177976    0.06   0.953   -.0343568   .0364664
         m4 |  .0038154   .0077002    0.50   0.622   -.0115055   .0191364
         m5 |  .0014339   .0078574    0.18   0.856   -.0141998   .0170676
         m6 | -.0037278   .0085859   -0.43   0.665   -.0208111   .0133556
         m7 |  .0044117   .0087388    0.50   0.615   -.0129759   .0217992
         m8 |   .004489   .0093112    0.48   0.631   -.0140373   .0230153
         m9 | -.0006813   .0108223   -0.06   0.950   -.0222142   .0208516
        m10 |  .0076255   .0094246    0.81   0.421   -.0111266   .0263775
        m11 |  .0082797   .0095429    0.87   0.388   -.0107077    .027267
        m12 |  .0152999   .0079292    1.93   0.057   -.0004768   .0310766
       _cons | -.0023375   .0082957   -0.28   0.779   -.0188433   .0141683
--------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |       SS         df      MS     Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =     2.36
      Model | .006832061       14 .000488004   Prob > F       =   0.0084
```

```
    Residual |  .016728311      81  .000206522   R-squared      =   0.2900
-------------+-------------------------------   Adj R-squared  =   0.1673
       Total |  .023560372      95  .000248004   Root MSE       =   .01437
```

```
-------------------------------------------------------------------------------
D.           |
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+-----------------------------------------------------------------
lnavg_Week~a |
         LD. |  -.383784   .0981534   -3.91   0.000   -.5790784  -.1884896
             |
    lnemp1000 |
        L2D. |  -.6557187  .6042215   -1.09   0.281   -1.85793    .5464925
             |
lnavg_Week~r |
        L2D. |  -.3490535  .1673759   -2.09   0.040   -.6820791  -.0160279
             |
          m2 |   -.00536   .0085459   -0.63   0.532   -.0223636   .0116435
          m3 |  -.0172732  .0178162   -0.97   0.335   -.0527219   .0181755
          m4 |   .0032165  .0073172    0.44   0.661   -.0113425   .0177754
          m5 |  -.0005878  .0074905   -0.08   0.938   -.0154915   .0143159
          m6 |  -.0079554  .0082594   -0.96   0.338    -.024389   .0084782
          m7 |   .0001071  .0084022    0.01   0.990   -.0166106   .0168248
          m8 |   -.001613  .0090303   -0.18   0.859   -.0195805   .0163545
          m9 |  -.0064543  .0102616   -0.63   0.531   -.0268716   .0139631
         m10 |   .0016493  .0091419    0.18   0.857   -.0165403   .0198389
         m11 |   .0016965   .009274    0.18   0.855   -.0167559   .0201489
         m12 |   .0127874  .0075703    1.69   0.095   -.0022751   .0278499
```

```
     _cons |  .0046895  .0081707   0.57  0.568  -.0115677   .0209467
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |      SS         df     MS      Number of obs  =      96
-------------+---------------------------------   F(14, 81)     =     2.25
      Model |  .006469833      14 .000462131   Prob > F      =   0.0124
   Residual |  .016663219      81 .000205719   R-squared     =   0.2797
-------------+---------------------------------   Adj R-squared =   0.1552
      Total |  .023133052      95 .000243506   Root MSE      =   .01434
```

```
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. | -.3715252  .0999951  -3.72  0.000  -.5704841  -.1725663
             |
   lnemp1000 |
        L2D. | -.5860862  .6045507  -0.97  0.335  -1.788952    .61678
             |
lnavg_Week~r |
        L2D. | -.3684791  .1643716  -2.24  0.028  -.6955271  -.0414311
             |
          m2 | -.0045949  .0086055  -0.53  0.595  -.0217171   .0125274
```

```
    m3 |  -.0152799   .0178918   -0.85   0.396   -.0508789    .0203191

    m4 |   .0034679   .0073164    0.47   0.637   -.0110894    .0180253

    m5 |  -.0002466   .0074954   -0.03   0.974   -.0151601    .0146669

    m6 |  -.0073653   .0082898   -0.89   0.377   -.0238594    .0091289

    m7 |    .000683   .0084384    0.08   0.936   -.0161068    .0174728

    m8 |  -.0010348    .009043   -0.11   0.909   -.0190275    .0169579

    m9 |  -.0054749    .010301   -0.53   0.597   -.0259705    .0150208

   m10 |   .0018681   .0089602    0.21   0.835   -.0159599     .019696

   m11 |   .0022882   .0092839    0.25   0.806   -.0161839    .0207603

   m12 |   .0130918   .0075696    1.73   0.088   -.0019692    .0281528

  _cons |   .0038411   .0082252    0.47   0.642   -.0125244    .0202066
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df     MS       Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =    2.01
     Model |  .006009946     14  .000429282   Prob > F      =   0.0265
  Residual |  .017258065     81  .000213063   R-squared     =   0.2583
-------------+----------------------------------   Adj R-squared =   0.1301
     Total |  .023268011     95  .000244926   Root MSE      =   .0146
```

```
D.           |
lnavg_Week~a |    Coef.   Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
```

```
lnavg_Week~a |
     LD. |  -.4017702   .1031886   -3.89   0.000   -.6070831   -.1964572
         |

 lnemp1000 |
     L2D. |   -.129052   .5667637   -0.23   0.820   -1.256734    .9986299
         |

lnavg_Week~r |
     L2D. |  -.2670017   .1559368   -1.71   0.091    -.577267    .0432635
         |
      m2 |  -.0017381   .0086057   -0.20   0.840   -.0188608    .0153846
      m3 |  -.0028604   .0169519   -0.17   0.866   -.0365893    .0308686
      m4 |   .0037783   .0074444    0.51   0.613   -.0110338    .0185904
      m5 |   .0010996   .0075883    0.14   0.885   -.0139988    .0161979
      m6 |  -.0044393   .0082732   -0.54   0.593   -.0209003    .0120218
      m7 |   .0040019   .0083728    0.48   0.634   -.0126573     .020661
      m8 |   .0036356   .0088368    0.41   0.682   -.0139469    .0212181
      m9 |  -.0001553    .010083   -0.02   0.988   -.0202172    .0199067
     m10 |   .0059508   .0088272    0.67   0.502   -.0116125     .023514
     m11 |   .0041091   .0094332    0.44   0.664   -.0146599    .0228781
     m12 |   .0149721     .00763    1.96   0.053   -.0002093    .0301535
    _cons |  -.0009614   .0079462   -0.12   0.904   -.0167718    .0148489
-------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
  Source |       SS         df       MS      Number of obs  =      96
```

```
-------------+------------------------------   F(14, 81)    =    1.99
      Model |  .00480143      14 .000342959  Prob > F    =   0.0284
   Residual |  .013935101      81 .000172038  R-squared   =   0.2563
-------------+------------------------------   Adj R-squared =   0.1277
      Total |  .018736532      95 .000197227  Root MSE    =   .01312
```

```
------------------------------------------------------------------------------
D.          |
lnavg_Week~a |     Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3899321  .0926124   -4.21  0.000   -.5742018  -.2056624
            |
  lnemp1000 |
       L2D. |  .4929587  .4576143    1.08  0.285   -.4175503   1.403468
            |
lnavg_Week~r |
       L2D. | -.2213396  .1366763   -1.62  0.109   -.4932825   .0506034
            |
         m2 |  .0031802  .0075807    0.42  0.676   -.011903    .0182635
         m3 |  .0144107  .0139561    1.03  0.305   -.0133576   .042179
         m4 |  .0048454  .0066858    0.72  0.471   -.0084573   .0181481
         m5 |  .0033736  .0067818    0.50  0.620   -.0101201   .0168673
         m6 |  .0000343  .0072853    0.00  0.996   -.0144611   .0145298
         m7 |  .0088421  .007345     1.20  0.232   -.0057722   .0234563
         m8 |  .0096857  .0076278    1.27  0.208   -.0054912   .0248625
         m9 |  .0076148  .0086583    0.88  0.382   -.0096124   .024842
        m10 |  .0118138  .0076729    1.54  0.128   -.0034527   .0270804
```

```
     m11 |  .0115963  .0079911   1.45  0.151  -.0043034   .0274961

     m12 |  .0105411  .0066376   1.59  0.116  -.0026657   .0237479

    _cons | -.0079009  .0067292  -1.17  0.244  -.0212898    .005488
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS         df      MS     Number of obs  =      96
-------------+--------------------------------  F(14, 81)     =    1.39
    Model |  .003397229     14  .000242659  Prob > F     =   0.1754

  Residual |  .01410383      81  .000174121  R-squared    =   0.1941
-------------+--------------------------------  Adj R-squared =   0.0548
    Total |  .017501059     95  .000184222  Root MSE     =   .0132
```

```
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
        LD. | -.3861133   .107844   -3.58  0.001   -.600689  -.1715377
            |
  lnemp1000 |
       L2D. | .5039025   .4850539   1.04  0.302  -.4612026   1.469008
            |
lnavg_Week~r |
       L2D. | -.2234495  .1492939  -1.50  0.138  -.5204976   .0735985
```

```
        |
    m2 |  .0017661  .0077717   0.23  0.821   -.0136972   .0172294
    m3 |   .01318   .0149441   0.88  0.380   -.016554    .042914
    m4 |  .0033391  .0067083   0.50  0.620   -.0100084   .0166866
    m5 |  .0018768  .0069059   0.27  0.786   -.0118637   .0156174
    m6 | -.0014157  .0074838  -0.19  0.850   -.0163061   .0134748
    m7 |  .0073998  .0074502   0.99  0.324   -.0074237   .0222233
    m8 |  .0082238  .0079731   1.03  0.305   -.0076402   .0240878
    m9 |  .0062179  .0091915   0.68  0.501   -.0120703   .0245061
   m10 |   .010383  .0079194   1.31  0.194   -.0053741   .02614
   m11 |  .0101395  .0083085   1.22  0.226   -.0063918   .0266708
   m12 |  .0090196  .0067649   1.33  0.186   -.0044404   .0224797
  _cons | -.006488  .0071944  -0.90  0.370   -.0208026   .0078266
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |     SS        df     MS     Number of obs  =     96
----------+---------------------------   F(14, 81)      =    1.64
    Model | .003871285    14  .00027652  Prob > F       =  0.0860
 Residual | .013660095    81  .000168643 R-squared      =  0.2208
----------+---------------------------   Adj R-squared  =  0.0861
    Total | .017531379    95  .000184541 Root MSE       =  .01299
```

D. |

```
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
       LD. | -.4293715    .10849    -3.96  0.000    -.6452325   -.2135105
           |
   lnemp1000 |
      L2D. |  .5084531    .477307    1.07  0.290    -.4412382    1.458144
           |
lnavg_Week~r |
      L2D. | -.2244072   .1468926   -1.53  0.130    -.5166774     .067863
           |
        m2 |  .0085256   .0075659    1.13  0.263    -.0065282    .0235795
        m3 |  .0130713   .0147066    0.89  0.377    -.0161902    .0423327
        m4 |   .003099   .0066032    0.47  0.640    -.0100394    .0162373
        m5 |  .0017624   .0067967    0.26  0.796     -.011761    .0152857
        m6 | -.0016609   .0073666   -0.23  0.822    -.0163182    .0129964
        m7 |  .0070054   .0073357    0.95  0.342    -.0075904    .0216013
        m8 |  .0083074   .0078462    1.06  0.293     -.007304    .0239188
        m9 |  .0061366   .0090458    0.68  0.499    -.0118617    .0241349
       m10 |  .0101339   .0077953    1.30  0.197    -.0053763    .0256441
       m11 |  .0102468   .0081757    1.25  0.214    -.0060203    .0265139
       m12 |  .0089857   .0066576    1.35  0.181    -.0042608    .0222323
      _cons | -.0063385   .0070809   -0.90  0.373    -.0204272    .0077503
------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |    SS        df      MS     Number of obs  =      96
-------------+--------------------------------  F(14, 81)    =     1.37
      Model |  .003395123    14 .000242509   Prob > F     =    0.1873
   Residual |  .01434164     81 .000177057   R-squared    =    0.1914
-------------+--------------------------------  Adj R-squared =   0.0517
      Total |  .017736764    95 .000186703   Root MSE     =   .01331
```

```
------------------------------------------------------------------------------
D.          |
lnavg_Week~a |   Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
       LD. | -.3849614   .109822   -3.51  0.001   -.6034728  -.1664501
           |
   lnemp1000 |
       L2D. |  .5171005  .4991312   1.04  0.303   -.4760141   1.510215
           |
lnavg_Week~r |
       L2D. | -.2169232  .1535469  -1.41  0.162   -.5224333    .088587
           |
        m2 |  .0088899  .0078115   1.14  0.258   -.0066526   .0244323
        m3 |  .0159821  .0150674   1.06  0.292   -.0139973   .0459615
        m4 |  .0033591  .0067744   0.50  0.621   -.0101198    .016838
        m5 |  .0019236  .0069815   0.28  0.784   -.0119674   .0158146
        m6 | -.0013116  .0075928  -0.17  0.863   -.0164188   .0137957
        m7 |  .0075356  .0075542   1.00  0.321   -.0074949   .0225661
        m8 |  .0083789  .0080825   1.04  0.303   -.0077028   .0244606
```

```
   m9 |   .0063767   .0093752    0.68  0.498   -.012277   .0250304

   m10 |   .0105287   .0080455    1.31  0.194   -.0054793   .0265367

   m11 |   .0103598   .0084168    1.23  0.222   -.006387   .0271066

   m12 |   .0089936   .006832    1.32  0.192   -.0045999   .0225871

  _cons |  -.0066424   .0073551   -0.90  0.369   -.0212767   .0079918
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |     SS        df      MS     Number of obs  =      96
-------------+---------------------------------  F(14, 81)    =    1.25
    Model |  .003178937     14  .000227067   Prob > F    =   0.2554

  Residual |  .014682243     81  .000181262   R-squared    =   0.1780
-------------+---------------------------------  Adj R-squared  =   0.0359
    Total |  .01786118     95  .000188012   Root MSE    =   .01346
```

```
D.        |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
     LD. |  -.3582542   .1095735   -3.27  0.002   -.5762712   -.1402372
         |
  lnemp1000 |
     L2D. |  .4775159   .5045392    0.95  0.347   -.5263588   1.481391
         |
```

lnavg_Week~r |

    L2D. | -.1904641 .1545999 -1.23 0.222 -.4980694 .1171413

       |

    m2 | .0086945 .0079027   1.10 0.275 -.0070295 .0244184

    m3 | .0149663 .0152368   0.98 0.329 -.0153502 .0452827

    m4 | .0057503   .00687   0.84 0.405 -.0079188 .0194195

    m5 | .0018047 .0070635   0.26 0.799 -.0122494 .0158588

    m6 | -.0014379 .0076825 -0.19 0.852 -.0167236 .0138478

    m7 | .0075895 .0076443   0.99 0.324 -.0076202 .0227992

    m8 | .0080756 .0081784   0.99 0.326 -.0081968   .024348

    m9 | .0058883 .0094811   0.62 0.536 -.0129761 .0247527

   m10 | .0103841 .0081413   1.28 0.206 -.0058146 .0265827

   m11 | .0101374 .0085217   1.19 0.238 -.0068181 .0270929

   m12 | .008779 .0069112   1.27 0.208 -.0049721   .02253

   _cons | -.0063079 .0074401 -0.85 0.399 -.0211113 .0084955

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

   Source | SS   df   MS   Number of obs =   96

-------------+---------------------------------- F(14, 81)   =   1.34

    Model | .003351693   14 .000239407 Prob > F   =   0.2048

  Residual | .014506823   81 .000179097 R-squared   =   0.1877

-------------+---------------------------------- Adj R-squared =   0.0473

    Total | .017858516   95 .000187984 Root MSE   =   .01338

```
--------------------------------------------------------------------------------
D.          |
lnavg_Week~a |      Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3580003   .1085077   -3.30  0.001   -.5738966   -.142104
            |
  lnemp1000 |
       L2D. |  .4767168   .5010362    0.95  0.344    -.520188   1.473622
            |
lnavg_Week~r |
       L2D. | -.1988352   .1538034   -1.29  0.200   -.5048558   .1071853
            |
         m2 |  .0087134   .0078545    1.11  0.271   -.0069145   .0243414
         m3 |  .0149228   .0151342    0.99  0.327   -.0151894   .0450351
         m4 |  .0057918   .006829     0.85  0.399   -.0077957   .0193793
         m5 |  .0000567   .0070384    0.01  0.994   -.0139475   .0140609
         m6 | -.0014406   .0076357   -0.19  0.851   -.0166333   .0137522
         m7 |  .007556    .0075983    0.99  0.323   -.0075623   .0226743
         m8 |  .0080327   .008127     0.99  0.326   -.0081375   .0242029
         m9 |  .0058991   .0094205    0.63  0.533   -.0128448   .024643
        m10 |  .0103618   .0080914    1.28  0.204   -.0057376   .0264613
        m11 |  .0100398   .0084686    1.19  0.239    -.00681    .0268897
        m12 |  .0088373   .0068697    1.29  0.202   -.0048313   .0225059
      _cons | -.0063022   .0073926   -0.85  0.396    -.021011   .0084067
--------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df      MS      Number of obs  =      96
-------------+----------------------------------  F(14, 81)     =     1.15
     Model | .002929326      14 .000209238  Prob > F      =    0.3279
  Residual | .014710251      81 .000181608  R-squared     =    0.1661
-------------+----------------------------------  Adj R-squared =    0.0219
     Total | .017639577      95 .00018568   Root MSE      =    .01348
```

```
--------------------------------------------------------------------------------
D.         |
lnavg_Week~a |    Coef.  Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3502569  .1101061   -3.18   0.002   -.5693335  -.1311802
           |
  lnemp1000 |
       L2D. |  .4146196  .5017675    0.83   0.411   -.5837403   1.41298
           |
lnavg_Week~r |
       L2D. | -.1752591  .1550209   -1.13   0.262   -.4837021   .133184
           |
        m2 |  .0082133  .0078968    1.04   0.301   -.0074988   .0239255
        m3 |  .013277   .0151739    0.87   0.384   -.0169144   .0434684
        m4 |  .0056066  .006875     0.82   0.417   -.0080724   .0192857
        m5 | -.0002131  .0070837   -0.03   0.976   -.0143074   .0138813
        m6 |  .0014303  .0078065    0.18   0.855   -.0141022   .0169628
```

```
    m7 |  .0072403   .0076457    0.95   0.346    -.0079722    .0224529

    m8 |  .0075162   .008171     0.92   0.360    -.0087415    .0237739

    m9 |  .0050638   .0094595    0.54   0.594    -.0137575    .0238852

   m10 |  .0098707   .0081353    1.21   0.229    -.006316     .0260573

   m11 |  .0095536   .0085158    1.12   0.265    -.00739      .0264973

   m12 |  .0085902   .0069162    1.24   0.218    -.0051709    .0223513

  _cons |  -.0056228  .0074199   -0.76   0.451    -.0203861    .0091406
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |     SS        df     MS     Number of obs  =     96
-------------+----------------------------------  F(14, 81)    =     1.13
     Model |  .002875006    14  .000205358   Prob > F     =   0.3449
   Residual |  .014710127    81  .000181607   R-squared    =   0.1635
-------------+----------------------------------  Adj R-squared =   0.0189
     Total |  .017585132    95  .000185107   Root MSE     =   .01348
```

```
D.           |
lnavg_Week~a |    Coef.   Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
       LD.  |  -.3500713   .1097596   -3.19   0.002   -.5684585   -.1316841
             |
   lnemp1000 |
```

```
        L2D. |   .4155521   .5022467    0.83   0.410   -.5837613    1.414866
             |

lnavg_Week~r |

        L2D. |  -.1754291   .1551552   -1.13   0.262   -.4841392    .1332811
             |

          m2 |   .0082225   .0079032    1.04   0.301   -.0075024    .0239474

          m3 |   .0133022   .0151851    0.88   0.384   -.0169114    .0435158

          m4 |   .0056099   .0068761    0.82   0.417   -.0080713    .0192912

          m5 |  -.0002087   .0070849   -0.03   0.977   -.0143054     .013888

          m6 |   .0014393    .007813    0.18   0.854   -.0141062    .0169849

          m7 |   .0071902   .0075991    0.95   0.347   -.0079296      .02231

          m8 |   .0075244   .0081721    0.92   0.360   -.0087354    .0237843

          m9 |   .0050769    .009467    0.54   0.593   -.0137594    .0239133

         m10 |   .0098804   .0081416    1.21   0.228   -.0063188    .0260796

         m11 |   .0095624   .0085157    1.12   0.265   -.0073811    .0265059

         m12 |   .0085929   .0069169    1.24   0.218   -.0051696    .0223554

       _cons |  -.0056344   .0074282   -0.76   0.450   -.0204142    .0091455
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS           df       MS      Number of obs   =      96
-------------+----------------------------------   F(14, 81)       =    1.14
       Model |  .002882586         14  .000205899   Prob > F        =  0.3382
    Residual |  .014640931         81  .000180752   R-squared       =  0.1645
-------------+----------------------------------   Adj R-squared   =  0.0201
```

```
    Total |  .017523517      95  .000184458   Root MSE      =   .01344
```

```
D.         |
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3483407   .109535   -3.18   0.002    -.566281   -.1304003
            |
   lnemp1000 |
       L2D. |  .3999619   .4997111    0.80   0.426   -.5943064    1.39423
            |
lnavg_Week~r |
       L2D. | -.1618969   .1551517   -1.04   0.300      -.4706    .1468063
            |
         m2 |  .0080741   .0078781    1.02   0.308   -.0076008    .0237489
         m3 |  .0129085   .0151169    0.85   0.396   -.0171694    .0429865
         m4 |  .0055246   .0068592    0.81   0.423   -.0081232    .0191724
         m5 | -.0002811   .0070663   -0.04   0.968   -.0143408    .0137786
         m6 |  .0013357   .0077889    0.17   0.864   -.0141618    .0168331
         m7 |  .0071481   .0075776    0.94   0.348   -.0079289    .0222251
         m8 |  .0058669   .0083272    0.70   0.483   -.0107017    .0224355
         m9 |  .0048481   .0094315    0.51   0.609   -.0139176    .0236138
        m10 |  .0097706   .0081154    1.20   0.232   -.0063766    .0259177
        m11 |  .0095206   .0084899    1.12   0.265   -.0073717    .0264128
        m12 |  .0084768   .0069003    1.23   0.223   -.0052527    .0222063
       _cons | -.0054608   .0073984   -0.74   0.463   -.0201812    .0092596
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(14, 81)	=	1.07
Model	.002806411	14	.000200458		Prob > F	=	0.3993
Residual	.015217903	81	.000187875		R-squared	=	0.1557
					Adj R-squared	=	0.0098
Total	.018024314	95	.00018973		Root MSE	=	.01371

D. lnavg_Week~a	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnavg_Week~a						
LD.	-.3520158	.1119761	-3.14	0.002	-.5748131	-.1292184
lnemp1000						
L2D.	.3676506	.5108198	0.72	0.474	-.6487206	1.384022
lnavg_Week~r						
L2D.	-.1663366	.158167	-1.05	0.296	-.4810395	.1483662
m2	.0078057	.0080349	0.97	0.334	-.0081813	.0237926
m3	.0120078	.0154452	0.78	0.439	-.0187233	.042739
m4	.0054747	.0069931	0.78	0.436	-.0084395	.0193888

```
    m5 |   -.000423   .0072056   -0.06   0.953    -.01476    .013914

    m6 |   .0010428   .0079433    0.13   0.896   -.0147619   .0168474

    m7 |   .0068559   .0077281    0.89   0.378   -.0085205   .0222324

    m8 |   .0055508   .0084975    0.65   0.515   -.0113566   .0224581

    m9 |   .0082745   .0095656    0.87   0.390    -.010758    .027307

   m10 |   .0094306   .0082782    1.14   0.258   -.0070405   .0259017

   m11 |   .0091037   .0086655    1.05   0.297    -.008138   .0263454

   m12 |    .008458   .0070352    1.20   0.233   -.0055399    .022456

  _cons |  -.0050757   .0075521   -0.67   0.503    -.020102   .0099505
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df       MS      Number of obs   =      96
-------------+----------------------------------   F(14, 81)      =     0.99
     Model |  .00257195      14  .000183711   Prob > F        =    0.4731
   Residual |  .015061829     81  .000185949   R-squared       =    0.1459
-------------+----------------------------------   Adj R-squared  =   -0.0018
     Total |   .01763378      95  .000185619   Root MSE        =    .01364
```

```
D.            |
lnavg_Week~a |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
       LD. |  -.3213021    .109592   -2.93   0.004   -.5393558   -.1032484
```

```
              |
  lnemp1000 |
       L2D. |  .6040734   .515956    1.17  0.245   -.4225172   1.630664
              |
lnavg_Week~r |
       L2D. | -.2398997  .1613698   -1.49  0.141   -.5609749   .0811755
              |
         m2 |  .0100941    .008027    1.26  0.212   -.0058771   .0260653
         m3 |  .0183267   .0155452    1.18  0.242   -.0126034   .0492569
         m4 |  .0063851   .0069631    0.92  0.362   -.0074693   .0202396
         m5 |  .0006815   .0071793    0.09  0.925    -.013603    .014966
         m6 |  .0031717   .0079242    0.40  0.690   -.0125951   .0189385
         m7 |  .0084868   .0076992    1.10  0.274   -.0068323   .0238058
         m8 |  .0078937   .0084997    0.93  0.356    -.009018   .0248055
         m9 |  .0116528   .0095906    1.22  0.228   -.0074295   .0307351
        m10 |  .0110569   .0080038    1.38  0.171   -.0048681   .0269819
        m11 |  .0110352   .0086459    1.28  0.205   -.0061675   .0282379
        m12 |  .0093498   .0070093    1.33  0.186   -.0045964   .023296
       _cons | -.0079389   .0075771   -1.05  0.298   -.0230148   .0071371
-------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS       df       MS      Number of obs  =      96
-------------+----------------------------------  F(14, 81)      =     1.07
     Model |  .00278808      14  .000199149  Prob > F       =   0.3936
```

```
  Residual |  .015027382      81  .000185523   R-squared     =   0.1565
-------------+----------------------------------   Adj R-squared =    0.0107
     Total |  .017815462      95  .000187531   Root MSE       =   .01362
```

```
-------------------------------------------------------------------------------
D.           |
lnavg_Week~a |    Coef.   Std. Err.    t   P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
       LD. |  -.3452772   .109893   -3.14   0.002   -.5639297   -.1266246
           |
  lnemp1000 |
      L2D. |   .6601834   .5182473    1.27   0.206   -.3709662    1.691333
           |
lnavg_Week~r |
      L2D. |  -.2481992   .1601608   -1.55   0.125   -.566869     .0704706
           |
        m2 |   .0103883   .0080233    1.29   0.199   -.0055756    .0263522
        m3 |   .0198441   .0156023    1.27   0.207   -.0111995    .0508878
        m4 |   .0064072   .006955     0.92   0.360   -.0074311    .0202454
        m5 |   .0008934   .0071741    0.12   0.901   -.0133808    .0151676
        m6 |   .003408    .007921     0.43   0.668   -.0123523    .0191683
        m7 |   .0087353   .0076987    1.13   0.260   -.0065826    .0240533
        m8 |   .0084409   .0085064    0.99   0.324   -.0084842    .025366
        m9 |   .0122679   .0095979    1.28   0.205   -.006829     .0313647
       m10 |   .0114625   .0080097    1.43   0.156   -.0044742    .0273993
       m11 |   .0091403   .008531     1.07   0.287   -.0078337    .0261143
       m12 |   .0094626   .0069998    1.35   0.180   -.0044649    .0233901
```

```
  _cons |  -.0084701   .0075886   -1.12   0.268    -.023569    .0066288
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS         df      MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)    =    1.06
       Model |  .002752573      14  .000196612   Prob > F      =   0.4030
    Residual |  .014984187      81  .00018499    R-squared     =   0.1552
-------------+----------------------------------   Adj R-squared =   0.0092
       Total |  .01773676       95  .000186703   Root MSE      =   .0136
```

```
D.           |
lnavg_Week~a |     Coef.   Std. Err.     t   P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. |  -.3439425   .1094503   -3.14   0.002    -.5617142   -.1261708
             |
   lnemp1000 |
        L2D. |   .7352863   .5245344    1.40   0.165    -.3083726    1.778945
             |
lnavg_Week~r |
        L2D. |  -.2773153   .1624624   -1.71   0.092    -.6005646    .045934
             |
          m2 |   .0110712   .0080419    1.38   0.172    -.0049296    .027072
```

```
  m3 |  .0218351  .0157456   1.39  0.169  -.0094936  .0531639

  m4 |  .0066849  .0069491   0.96  0.339  -.0071416  .0205115

  m5 |  .0012354  .0071735   0.17  0.864  -.0130376  .0155085

  m6 |  .0040081  .0079322   0.51  0.615  -.0117745  .0197907

  m7 |  .0091751  .0077017   1.19  0.237  -.0061489  .0244991

  m8 |   .009185  .0085361   1.08  0.285  -.0077992  .0261692

  m9 |  .0133134  .0096506   1.38  0.172  -.0058882   .032515

 m10 |  .0119944  .0080211   1.50  0.139   -.003965  .0279538

 m11 |  .0097423  .0085491   1.14  0.258  -.0072677  .0267523

 m12 |  .0065912  .0069321   0.95  0.345  -.0072016   .020384

_cons | -.0093419  .0076368  -1.22  0.225  -.0245366  .0058529
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS        df       MS      Number of obs  =     96
-------------+----------------------------------   F(14, 81)     =    0.97
     Model |  .002474057     14  .000176718   Prob > F      =   0.4892
  Residual |  .014732904     81  .000181888   R-squared     =   0.1438
-------------+----------------------------------   Adj R-squared =  -0.0042
     Total |  .017206962     95  .000181126   Root MSE      =   .01349
```

```
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
```

```
lnavg_Week~a |
        LD. | -.3335642   .1086724   -3.07   0.003   -.5497883   -.1173402
            |
  lnemp1000 |
       L2D. |  .6308133   .5275587    1.20   0.235    -.418863    1.680489
            |
lnavg_Week~r |
       L2D. | -.2628783   .1611924   -1.63   0.107   -.5836006    .0578441
            |
         m2 |  .0079956   .0081491    0.98   0.329   -.0082185    .0242097
         m3 |  .0167148   .0160568    1.04   0.301   -.0152332    .0486628
         m4 |  .0042001   .0069517    0.60   0.547   -.0096317    .0180319
         m5 | -.0014939   .0072225   -0.21   0.837   -.0158644    .0128765
         m6 |  .0009824   .0080169    0.12   0.903   -.0149688    .0169335
         m7 |  .0062193   .0077662    0.80   0.426    -.009233    .0216715
         m8 |  .0058734   .0086922    0.68   0.501   -.0114214    .0231683
         m9 |   .009708   .0098389    0.99   0.327   -.0098683    .0292844
        m10 |  .0088729    .008127    1.09   0.278   -.0072971    .025043
        m11 |  .0064194   .0086862    0.74   0.462   -.0108634    .0237023
        m12 |  .0041426   .0069344    0.60   0.552   -.0096546    .0179398
       _cons | -.0059071   .0078526   -0.75   0.454   -.0215313    .0097172
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |       SS          df       MS     Number of obs   =      96
```

```
-------------+------------------------------    F(14, 81)      =      1.24
     Model |  .002996927      14 .000214066   Prob > F      =    0.2670
   Residual |  .014036621      81 .000173292   R-squared     =    0.1759
-------------+------------------------------    Adj R-squared =    0.0335
     Total |  .017033548      95 .000179301   Root MSE      =    .01316
```

```
--------------------------------------------------------------------------
D.          |
lnavg_Week~a |     Coef.  Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3787243   .1076371   -3.52  0.001    -.5928884   -.1645602
            |
  lnemp1000 |
       L2D. |  .7260956   .5087428    1.43  0.157    -.286143    1.738334
            |
lnavg_Week~r |
       L2D. | -.3029912   .1577478   -1.92  0.058    -.6168598   .0108773
            |
        m2 |  .0113217   .0081121    1.40  0.167    -.0048188   .0274622
        m3 |  .0193711   .0155164    1.25  0.215    -.0115017   .0502439
        m4 |  .0044928   .0067826    0.66  0.510    -.0090025   .0179881
        m5 | -.0009785   .0070395   -0.14  0.890    -.0149849   .0130278
        m6 |  .0014802   .0077987    0.19  0.850    -.0140368   .0169971
        m7 |  .0066323   .0075577    0.88  0.383    -.0084051   .0216698
        m8 |  .0069559   .0084449    0.82  0.413    -.0098468   .0237585
        m9 |  .0109483   .0095446    1.15  0.255    -.0080424   .0299391
       m10 |   .009577   .0079015    1.21  0.229    -.0061445   .0252984
```

```
    m11 |  .0073252  .0084356   0.87  0.388   -.009459   .0241094
    m12 |  .0044872   .006767   0.66  0.509   -.008977   .0179515
   _cons | -.0069424  .0076071  -0.91  0.364  -.0220782   .0081934
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df      MS      Number of obs  =      96
-------------+----------------------------  F(14, 81)      =     1.26
     Model |  .003051438      14  .00021796  Prob > F       =   0.2475
  Residual |  .013957281      81  .000172312  R-squared      =   0.1794
-------------+----------------------------  Adj R-squared  =   0.0376
     Total |  .017008719      95  .000179039  Root MSE       =   .01313
```

```
D.        |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+-------------------------------------------------------
lnavg_Week~a |
       LD. |  -.386286  .1075324  -3.59  0.001  -.6002417  -.1723304
           |
  lnemp1000 |
      L2D. |  .6878264  .5039424   1.36  0.176  -.3148609   1.690514
           |
lnavg_Week~r |
      L2D. | -.2973143  .1570278  -1.89  0.062  -.6097504   .0151219
```

```
         |
      m2 |   .0109521   .0080739    1.36   0.179    -.0051124    .0270167
      m3 |   .0192375   .0150637    1.28   0.205    -.0107346    .0492096
      m4 |   .0043609    .006763    0.64   0.521    -.0090953     .017817
      m5 |  -.0011607   .0070134   -0.17   0.869    -.0151152    .0127938
      m6 |   .0011069   .0077714    0.14   0.887    -.0143557    .0165696
      m7 |   .0063188   .0075295    0.84   0.404    -.0086626    .0213001
      m8 |   .0065746   .0083967    0.78   0.436    -.0101323    .0232814
      m9 |   .0104021   .0094906    1.10   0.276    -.0084813    .0292855
     m10 |   .0092446   .0078637    1.18   0.243    -.0064017    .0248909
     m11 |   .0069496    .008387    0.83   0.410    -.0097378     .023637
     m12 |   .0043823   .0067471    0.65   0.518    -.0090423    .0178069
    _cons |  -.0064653   .0075596   -0.86   0.395    -.0215066     .008576
------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS        df      MS        Number of obs  =      96
-------------+------------------------------    F(14, 81)      =     1.31
     Model |  .003135266      14  .000223948    Prob > F       =   0.2196
  Residual |  .013840091      81  .000170865    R-squared      =   0.1847
-------------+------------------------------    Adj R-squared  =   0.0438
     Total |  .016975357      95  .000178688    Root MSE       =   .01307


------------------------------------------------------------------------------
    D.       |
```

```
lnavg_Week~a |      Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3926983   .1072962   -3.66   0.000   -.6061841   -.1792125
            |
   lnemp1000 |
       L2D. |  .6487085   .5007915    1.30   0.199   -.3477094    1.645126
            |
lnavg_Week~r |
       L2D. | -.3105068   .1571356   -1.98   0.052   -.6231573    .0021438
            |
         m2 |  .0106503   .0080315    1.33   0.189   -.0053299    .0266304
         m3 |  .0181698   .0149775    1.21   0.229   -.0116307    .0479703
         m4 |  .0053032   .0067138    0.79   0.432   -.0080551    .0186615
         m5 | -.0013229   .0069815   -0.19   0.850   -.0152139    .0125681
         m6 |  .0007396   .007735     0.10   0.924   -.0146506    .0161298
         m7 |  .0059224   .0074991    0.79   0.432   -.0089984    .0208432
         m8 |  .0062015   .0083536    0.74   0.460   -.0104196    .0228226
         m9 |  .0099142   .0094374    1.05   0.297   -.0088633    .0286916
        m10 |  .0088298   .0078298    1.13   0.263   -.0067491    .0244087
        m11 |  .0064346   .0083525    0.77   0.443   -.0101842    .0230534
        m12 |  .0044134   .0067179    0.66   0.513   -.0089532    .01778
      _cons |     -.006   .0075175   -0.80   0.427   -.0209575    .0089575
------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
      Source |       SS         df      MS     Number of obs  =      96
-------------+---------------------------------  F(14, 81)    =     1.27
       Model | .003047705      14 .000217693   Prob > F      =    0.2465
    Residual | .013922633      81 .000171884   R-squared     =    0.1796
-------------+---------------------------------  Adj R-squared =    0.0378
       Total | .016970338      95 .000178635   Root MSE      =   .01311
```

```
--------------------------------------------------------------------------------
D.           |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------------
lnavg_Week~a |
         LD. | -.3906696  .1077645  -3.63  0.001  -.6050872  -.176252
             |
   lnemp1000 |
        L2D. |  .591068   .4954142   1.19  0.236  -.394651   1.576787
             |
lnavg_Week~r |
        L2D. | -.2943768  .1558832  -1.89  0.063  -.6045354   .0157819
             |
          m2 |  .0100903  .008015    1.26  0.212  -.0058571   .0260377
          m3 |  .0166319  .0148591   1.12  0.266  -.0129331   .0461968
          m4 |  .005116   .0067284   0.76  0.449  -.0082713   .0185033
          m5 | -.000607   .0070913  -0.09  0.932  -.0147165   .0135026
          m6 |  .0002673  .0077281   0.03  0.972  -.0151091   .0156438
          m7 |  .0055363  .0075008   0.74  0.463  -.0093879   .0204606
          m8 |  .0055972  .0083335   0.67  0.504  -.0109839   .0221783
```

```
  m9 |   .0091091   .0093944    0.97   0.335   -.0095828    .027801

 m10 |   .0083636   .0078245    1.07   0.288   -.0072048   .0239319

 m11 |   .0058894   .0083409    0.71   0.482   -.0107063   .0224851

 m12 |   .0042226   .0067323    0.63   0.532   -.0091726   .0176178

_cons |  -.0053113   .0074745   -0.71   0.479   -.0201832   .0095607
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS         df       MS       Number of obs  =      96
-------------+----------------------------------   F(14, 81)      =    1.26
     Model |  .002881148       14  .000205796   Prob > F       =   0.2536
  Residual |  .013277772       81  .000163923   R-squared      =   0.1783
-------------+----------------------------------   Adj R-squared  =   0.0363
     Total |   .01615892       95  .000170094   Root MSE       =    .0128
```

```
D.            |
lnavg_Week~a |    Coef.   Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. |  -.3806302   .1051808   -3.62   0.001   -.589907   -.1713534
             |
   lnemp1000 |
        L2D. |   .6644106   .4852149    1.37   0.175   -.3010148   1.629836
             |
```

lnavg_Week~r |

    L2D. | -.2880497 .1522635 -1.89 0.062 -.5910063   .0149069

        |

    m2 | .0107235 .0078337   1.37 0.175 -.0048631   .0263102

    m3 | .0186051 .0145449   1.28 0.204 -.0103347   .0475448

    m4 | .0051782 .0065708   0.79 0.433 -.0078955   .018252

    m5 | -.0002584 .0069274 -0.04 0.970 -.0140417   .0135249

    m6 | .0055863 .0076543   0.73 0.468 -.0096434   .020816

    m7 | .0061929 .0073325   0.84 0.401 -.0083965   .0207823

    m8 | .0063183 .0081463   0.78 0.440 -.0098904   .0225269

    m9 | .0100815 .0091873   1.10 0.276 -.0081984   .0283614

    m10 | .0090675 .0076494   1.19 0.239 -.0061524   .0242874

    m11 | .0067354 .0081565   0.83 0.411 -.0094935   .0229643

    m12 | .0042931 .0065746   0.65 0.516 -.0087884   .0173745

    _cons | -.0061963   .007313 -0.85 0.399 -.0207469   .0083543

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

    Source | SS   df   MS   Number of obs =   96
-------------+---------------------------------- F(14, 81)   =   1.29
     Model | .002956903   14 .000211207 Prob > F   =   0.2305
   Residual | .01323777   81 .000163429 R-squared   =   0.1826
-------------+---------------------------------- Adj R-squared =   0.0413
     Total | .016194673   95   .00017047 Root MSE   =   .01278

```
--------------------------------------------------------------------------------
D.         |
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3999035   .1079343   -3.71   0.000    -.6146588   -.1851481
            |
  lnemp1000 |
       L2D. |  .6739344   .4815558    1.40   0.165    -.2842106    1.632079
            |
lnavg_Week~r |
       L2D. |  -.302248   .152676    -1.98   0.051    -.6060254    .0015293
            |
         m2 |  .0108239   .0078065    1.39   0.169    -.0047086    .0263565
         m3 |  .0188877   .0144496    1.31   0.195    -.0098625    .0476379
         m4 |  .0052603   .0065599    0.80   0.425    -.0077918    .0183124
         m5 | -.0001629    .00691    -0.02   0.981    -.0139116    .0135858
         m6 |  .0055304   .0076384    0.72   0.471    -.0096676    .0207283
         m7 |  .0065818   .0073465    0.90   0.373    -.0080354     .021199
         m8 |  .0064613   .0081133    0.80   0.428    -.0096815    .0226042
         m9 |  .0101924   .0091471    1.11   0.268    -.0080074    .0283923
        m10 |  .0090927   .0076269    1.19   0.237    -.0060825    .0242679
        m11 |  .0067908   .0081273    0.84   0.406     -.00938     .0229616
        m12 |  .0043769   .0065636    0.67   0.507    -.0086826    .0174364
      _cons | -.0062687   .0072782   -0.86   0.392     -.02075     .0082126
--------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |      SS         df      MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =     1.29
      Model | .002954692      14 .000211049   Prob > F      =    0.2311
   Residual | .013238876      81 .000163443   R-squared     =    0.1825
-------------+----------------------------------   Adj R-squared =    0.0412
      Total | .016193567      95 .000170459   Root MSE      =   .01278
```

```
--------------------------------------------------------------------------------
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.4002535 .1078672  -3.71  0.000   -.6148754  -.1856316
            |
   lnemp1000 |
       L2D. |  .6646661 .4775404   1.39  0.168   -.2854895   1.614822
            |
lnavg_Week~r |
       L2D. | -.2978928 .1542229  -1.93  0.057    -.604748   .0089624
            |
         m2 |  .0107258 .0077851   1.38  0.172   -.0047642   .0262157
         m3 |  .0186455 .0143552   1.30  0.198   -.0099168   .0472077
         m4 |  .0052159 .0065605   0.80  0.429   -.0078373   .0182692
         m5 | -.0002182 .0069026  -0.03  0.975   -.0139523   .0135159
         m6 |    .00545 .0076168   0.72  0.476    -.009705    .020605
```

```
   m7 |  .0065223  .0073326   0.89  0.376  -.0080673   .021112

   m8 |  .0064024  .0082486   0.78  0.440  -.0100098  .0228145

   m9 |  .0100546  .0091067   1.10  0.273  -.0080649  .0281742

  m10 |  .0090245  .0076089   1.19  0.239  -.0061148  .0241639

  m11 |  .0067166   .008105   0.83  0.410  -.0094098   .022843

  m12 |  .0043325   .006564   0.66  0.511  -.0087278  .0173927

 _cons | -.0061544  .0072391  -0.85  0.398  -.0205579  .0082492
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |      SS        df      MS      Number of obs  =     96
-------------+----------------------------------  F(14, 81)     =    1.28
    Model |  .002934074     14  .000209577   Prob > F     =   0.2379
  Residual |   .01325961     81  .000163699   R-squared     =   0.1812
-------------+----------------------------------  Adj R-squared  =   0.0397
    Total |  .016193684     95   .00017046   Root MSE     =   .01279
```

```
D.        |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
      LD. | -.3990877  .1079881  -3.70  0.000  -.6139501  -.1842252
         |
  lnemp1000 |
```

```
    L2D. |   .6578655   .4775321    1.38   0.172   -.2922735   1.608005
         |

lnavg_Week~r |
    L2D. |  -.2913968   .1534217   -1.90   0.061   -.5966578   .0138642

         |
      m2 |   .0106438   .0077878    1.37   0.175   -.0048516   .0261391
      m3 |     .01847   .0143579    1.29   0.202   -.0100978   .0470379
      m4 |   .0051615    .006564    0.79   0.434   -.0078987   .0182217
      m5 |  -.0002668   .0069067   -0.04   0.969    -.014009   .0134754
      m6 |    .005404   .0076217    0.71   0.480   -.0097609   .0205688
      m7 |   .0064888   .0073378    0.88   0.379   -.0081111   .0210887
      m8 |    .006308   .0082509    0.76   0.447   -.0101087   .0227246
      m9 |   .0095318   .0090704    1.05   0.296   -.0085155   .0275791
     m10 |   .0089881   .0076142    1.18   0.241   -.0061618    .024138
     m11 |   .0066811   .0081108    0.82   0.413   -.0094569    .022819
     m12 |   .0042785   .0065675    0.65   0.517   -.0087888   .0173457
    _cons |  -.0060712    .007241   -0.84   0.404   -.0204785   .0083362
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |       SS        df     MS      Number of obs   =      96
-------------+--------------------------------   F(14, 81)      =     1.24
     Model |  .002798844     14 .000199917   Prob > F       =   0.2609
   Residual |  .013012791     81 .000160652   R-squared      =   0.1770
-------------+--------------------------------   Adj R-squared  =   0.0348
```

```
   Total | .015811635       95 .000166438  Root MSE      =   .01267
```

```
D.        |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3930286  .1069635   -3.67  0.000   -.6058523  -.1802049
            |
  lnemp1000 |
        L2D. |  .6803982  .4731259    1.44  0.154   -.260974    1.62177
            |
lnavg_Week~r |
        L2D. | -.2872378   .151955   -1.89  0.062   -.5895805    .015105
            |
         m2 |  .0108355  .0077151    1.40  0.164   -.0045151   .0261861
         m3 |  .0190725  .0142247    1.34  0.184   -.0092302   .0473753
         m4 |  .0051696  .0065024    0.80  0.429   -.0077682   .0181074
         m5 | -.000167   .0068419   -0.02  0.981   -.0137802   .0134462
         m6 |  .0056496  .0075523    0.75  0.457   -.0093771   .0206762
         m7 |  .006679   .0072698    0.92  0.361   -.0077857   .0211436
         m8 |  .0065231  .0081734    0.80  0.427   -.0097394   .0227856
         m9 |  .0098428  .0089866    1.10  0.277   -.0080378   .0277233
        m10 |  .0056626  .0074271    0.76  0.448   -.009115    .0204403
        m11 |  .0069492  .0080361    0.86  0.390   -.0090402   .0229385
        m12 |  .004289   .0065059    0.66  0.512   -.0086557   .0172338
       _cons | -.0063492  .0071744   -0.88  0.379   -.020624    .0079257
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |     SS        df      MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)    =     1.21
      Model | .002718971     14 .000194212   Prob > F     =    0.2834
   Residual | .012982962     81 .000160283   R-squared    =    0.1732
-------------+----------------------------------   Adj R-squared  =   0.0303
      Total | .015701933     95 .000165284   Root MSE     =    .01266
```

```
------------------------------------------------------------------------------
D.           |
lnavg_Week~a |     Coef.  Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. | -.3863585  .1079268   -3.58  0.001   -.6010989   -.171618
             |
   lnemp1000 |
        L2D. | .6984739   .4697989    1.49  0.141   -.2362785   1.633226
             |
lnavg_Week~r |
        L2D. | -.2852813  .1504322   -1.90  0.061   -.5845941   .0140316
             |
          m2 | .0109982   .0076879    1.43  0.156   -.0042984   .0262947
          m3 | .0195485   .0141419    1.38  0.171   -.0085893   .0476864
          m4 | .0051896   .006491     0.80  0.426   -.0077255   .0181047
```

```
    m5 |   -.000086   .0068261   -0.01   0.990   -.0136679    .0134958

    m6 |   .0058568   .0075386    0.78   0.439   -.0091426    .0208563

    m7 |   .0068261   .0072548    0.94   0.350   -.0076087     .021261

    m8 |   .0067008   .0081393    0.82   0.413   -.0094938    .0228953

    m9 |   .0101014   .0089501    1.13   0.262   -.0077065    .0279093

   m10 |   .0058277   .0074113    0.79   0.434   -.0089185    .0205739

   m11 |   .0080788   .0083167    0.97   0.334   -.0084689    .0246264

   m12 |   .0043103   .0064944    0.66   0.509   -.0086115    .0172322

  _cons |  -.0065786    .007142   -0.92   0.360    -.020789    .0076318
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS          df       MS       Number of obs  =       96
-------------+----------------------------------   F(14, 81)      =     1.19
     Model |   .00267574      14  .000191124   Prob > F       =    0.2987
  Residual |  .013004361      81  .000160548   R-squared      =    0.1706
-------------+----------------------------------   Adj R-squared  =   0.0273
     Total |   .0156801       95  .000165054   Root MSE       =   .01267
```

```
D.          |
lnavg_Week~a |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. |  -.3849088   .1079482   -3.57   0.001   -.5996918   -.1701258
```

```
        |
  lnemp1000 |
    L2D. |  .7054641  .5210749   1.35  0.180  -.3313115   1.74224
        |
lnavg_Week~r |
    L2D. | -.2825308  .1586112  -1.78  0.079  -.5981174  .0330558
        |
      m2 |  .0110512  .0079889   1.38  0.170  -.0048441  .0269465
      m3 |  .0197393  .0153715   1.28  0.203  -.0108453  .0503238
      m4 |  .0051805  .0065289   0.79  0.430  -.0078099  .0181709
      m5 | -.0000576  .0069434  -0.01  0.993  -.0138729  .0137577
      m6 |  .0059319  .0077909   0.76  0.449  -.0095695  .0214333
      m7 |  .0068901    .00744   0.93  0.357  -.0079132  .0216934
      m8 |   .006762  .0085204   0.79  0.430  -.0101909   .023715
      m9 |  .0101933  .0094706   1.08  0.285  -.0086501  .0290368
     m10 |  .0058977   .007627   0.77  0.442  -.0092776   .021073
     m11 |  .0081829  .0086764   0.94  0.348  -.0090804  .0254462
     m12 |  .0035686  .0063705   0.56  0.577  -.0091067  .0162439
    _cons | -.0066622  .0076374  -0.87  0.386  -.0218582  .0085339
--------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |       SS        df      MS     Number of obs =      96
-------------+----------------------------------  F(14, 81)     =    1.19
    Model |  .002745634      14  .000196117  Prob > F      =   0.2991
```

```
    Residual |  .013350376      81  .000164819   R-squared     =   0.1706
-------------+--------------------------------   Adj R-squared  =   0.0272
       Total |   .01609601      95  .000169432   Root MSE       =   .01284
```

```
------------------------------------------------------------------------------
D.           |
lnavg_Week~a |    Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. | -.3807906   .1100707   -3.46   0.001   -.5997967  -.1617844
             |
   lnemp1000 |
        L2D. |  .7412614   .5299867    1.40   0.166   -.3132458   1.795769
             |
lnavg_Week~r |
        L2D. | -.2783919   .1645068   -1.69   0.094    -.605709   .0489251
             |
          m2 |  .0139161   .0079462    1.75   0.084   -.0018943   .0297265
          m3 |  .0232678   .0153887    1.51   0.134    -.007351   .0538865
          m4 |  .0077631   .0065453    1.19   0.239     -.00526   .0207863
          m5 |  .0026726    .006933    0.39   0.701   -.0111219   .0164672
          m6 |  .0088449   .0077715    1.14   0.258    -.006618   .0243078
          m7 |  .0097484    .007428    1.31   0.193   -.0050309   .0245277
          m8 |  .0096749   .0084719    1.14   0.257   -.0071815   .0265312
          m9 |  .0132346   .0094257    1.40   0.164   -.0055197   .0319888
         m10 |   .008784   .0076102    1.15   0.252   -.0063579   .0239259
         m11 |   .011214   .0086505    1.30   0.199   -.0059979   .0284258
         m12 |  .0061194   .0064283    0.95   0.344   -.0066709   .0189097
```

```
    _cons |  -.0096523   .0075523   -1.28   0.205   -.024679    .0053743
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)


```
     Source |       SS          df       MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =    1.57
      Model |  .003629907      14  .000259279   Prob > F        =   0.1056
   Residual |  .013369096      81  .000165051   R-squared       =   0.2135
-------------+----------------------------------   Adj R-squared  =   0.0776
      Total |  .016999003      95  .000178937   Root MSE        =   .01285
```

```
D.          |
lnavg_Week~a |     Coef.   Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. |  -.3980335   .1091139   -3.65   0.000   -.6151359   -.180931
            |
  lnemp1000 |
       L2D. |   .7228177   .5299145    1.36   0.176   -.3315461   1.777181
            |
lnavg_Week~r |
       L2D. |  -.2889002   .1646757   -1.75   0.083   -.6165533   .0387528
            |
         m2 |   .019058    .0080451    2.37   0.020    .0030507   .0350652
```

```
     m3 |  .0227699  .0153889   1.48  0.143   -.0078492    .053389

     m4 |   .007763   .0065499   1.19  0.239   -.0052693   .0207952

     m5 |  .0025933  .0069372    0.37  0.710   -.0112096   .0163962

     m6 |  .0085322  .0077707    1.10  0.275   -.0069291   .0239934

     m7 |  .0095517  .0074306    1.29  0.202   -.0052329   .0243363

     m8 |  .0095025  .0084751    1.12  0.266   -.0073603   .0263652

     m9 |  .0129278  .009426     1.37  0.174   -.005827    .0316827

    m10 |  .0085604  .0076123    1.12  0.264   -.0065856   .0237064

    m11 |  .0108809  .0086504    1.26  0.212   -.0063307   .0280926

    m12 |   .00613   .0064328    0.95  0.343   -.0066692   .0189293

   _cons | -.0093737  .0075513  -1.24  0.218   -.0243984   .005651
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df     MS     Number of obs  =      96
-------------+----------------------------------  F(14, 81)     =    1.67
     Model | .003842456      14 .000274461   Prob > F      =   0.0794
  Residual | .013342573      81 .000164723   R-squared     =   0.2236
-------------+----------------------------------  Adj R-squared  =  0.0894
     Total | .017185029      95 .000180895   Root MSE      =  .01283
```

```
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------
```

```
lnavg_Week~a |
      LD. | -.4119606   .1086058   -3.79   0.000   -.6280521   -.1958691
          |
  lnemp1000 |
      L2D. |  .7200183   .5287047    1.36   0.177   -.3319381   1.771975
          |
lnavg_Week~r |
      L2D. | -.2927361    .164727   -1.78   0.079   -.6204912    .0350191
          |
        m2 |  .0189616   .0080285    2.36   0.021    .0029875    .0349358
        m3 |  .0231546   .0153232    1.51   0.135   -.0073338    .053643
        m4 |  .0077493   .0065429    1.18   0.240   -.0052691    .0207677
        m5 |   .002587   .0069294    0.37   0.710   -.0112002    .0163743
        m6 |  .0083989   .0077534    1.08   0.282   -.0070279    .0238257
        m7 |  .0095105   .0074201    1.28   0.204   -.0052532    .0242741
        m8 |  .0094757   .0084621    1.12   0.266   -.0073612    .0263125
        m9 |  .0128365   .0094058    1.36   0.176   -.0058781    .0315512
       m10 |  .0085057   .0076005    1.12   0.266   -.0066168    .0236283
       m11 |  .0107947   .0086338    1.25   0.215   -.0063838    .0279732
       m12 |  .0061275   .0064264    0.95   0.343    -.006659    .018914
      _cons | -.0092923   .0075334   -1.23   0.221   -.0242815    .0056968
-------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df       MS      Number of obs   =     96
```

```
-------------+---------------------------------  F(14, 81)      =      1.65

      Model |  .003935147      14 .000281082  Prob > F      =    0.0824

   Residual |  .013766422      81 .000169956  R-squared    =    0.2223

-------------+---------------------------------  Adj R-squared  =   0.0879

      Total |  .017701568      95 .000186332  Root MSE      =   .01304
```

```
--------------------------------------------------------------------------

D.          |

lnavg_Week~a |     Coef.  Std. Err.    t    P>|t|    [95% Conf. Interval]

-------------+------------------------------------------------------------

lnavg_Week~a |

        LD. | -.4196237  .1102106   -3.81  0.000   -.6389083   -.2003391

            |

  lnemp1000 |

       L2D. |  .5631048   .530563    1.06  0.292   -.4925491   1.618759

            |

lnavg_Week~r |

       L2D. |  -.242904  .1674724   -1.45  0.151   -.5761215    .0903135

            |

        m2 |  .0174095  .0081149   2.15  0.035    .0012634    .0335555

        m3 |  .0192331  .0154223   1.25  0.216   -.0114524    .0499186

        m4 |  .0089065   .006746   1.32  0.190   -.0045159    .022329

        m5 |  .0018112  .0070267   0.26  0.797   -.0121699    .0157922

        m6 |  .0071112  .0078427   0.91  0.367   -.0084932    .0227157

        m7 |   .008537  .0075163   1.14  0.259   -.0064181    .0234922

        m8 |  .0077884  .0085509   0.91  0.365   -.0092252    .0248019

        m9 |  .0107395  .0094888   1.13  0.261   -.0081402    .0296192

       m10 |  .0074187  .0076953   0.96  0.338   -.0078926     .02273
```

```
    m11 |  .0092684   .008726    1.06  0.291   -.0080935   .0266304
    m12 |  .0060148  .0065277    0.92  0.360   -.0069732   .0190028
   _cons | -.0074855  .0075904   -0.99  0.327    -.022588   .0076169
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |     SS         df      MS      Number of obs  =       96
-------------+----------------------------   F(14, 81)      =    1.34
     Model | .003297541      14  .000235539  Prob > F       =   0.2031
  Residual | .014238223      81  .000175781  R-squared      =   0.1880
-------------+----------------------------   Adj R-squared  =   0.0477
     Total | .017535764      95  .000184587  Root MSE       =   .01326
```

```
D.           |
lnavg_Week~a |    Coef.   Std. Err.    t    P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
         LD. | -.3732184   .1095939   -3.41  0.001   -.5912758  -.1551609
             |
   lnemp1000 |
        L2D. |  .1849158   .4877555    0.38  0.706   -.7855647   1.155396
             |
lnavg_Week~r |
        L2D. |  -.182474   .1663485   -1.10  0.276   -.5134553   .1485073
```

```
        |
    m2 |  .0141951  .0080174   1.77  0.080   -.001757   .0301471
    m3 |  .0089974  .0143864   0.63  0.533  -.0196271   .0376218
    m4 |  .0081242  .0068441   1.19  0.239  -.0054934   .0217417
    m5 |  .0032129  .0074489   0.43  0.667  -.0116081   .0180339
    m6 |  .0042936  .0077905   0.55  0.583  -.0112071   .0197943
    m7 |  .0058931  .0074722   0.79  0.433  -.0089742   .0207604
    m8 |  .0038732  .0083616   0.46  0.644  -.0127639   .0205102
    m9 |  .0059663   .009201   0.65  0.519  -.0123407   .0242733
   m10 |  .0045538  .0076288   0.60  0.552  -.0106252   .0197327
   m11 |  .0052309  .0085265   0.61  0.541  -.0117341   .0221959
   m12 |  .0059322  .0066384   0.89  0.374  -.0072761   .0191405
  _cons | -.0033003  .0072857  -0.45  0.652  -.0177965   .0111959
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
   Source |       SS        df      MS       Number of obs  =      96
-------------+----------------------------------    F(14, 81)      =    1.46
    Model |  .003579691      14  .000255692    Prob > F       =  0.1463
  Residual |  .014201162      81  .000175323    R-squared      =  0.2013
-------------+----------------------------------    Adj R-squared  =  0.0633
    Total |  .017780853      95  .000187167    Root MSE       =  .01324
```

```
  D.       |
```

```
lnavg_Week~a |     Coef.  Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3750109  .1093229   -3.43   0.001   -.5925292  -.1574927
            |
   lnemp1000 |
       L2D. |  .0874856  .0787903    1.11   0.270   -.0692824   .2442536
            |
lnavg_Week~r |
       L2D. | -.1656385  .1444488   -1.15   0.255   -.4530463   .1217694
            |
         m2 |  .0132836  .0066958    1.98   0.051   -.0000389   .0266062
         m3 |  .0064817  .0069661    0.93   0.355   -.0073787    .020342
         m4 |  .0078545  .0067204    1.17   0.246    -.005517   .0212261
         m5 |   .002543  .0066453    0.38   0.703    -.010679   .0157651
         m6 |  .0044134  .0070855    0.62   0.535   -.0096846   .0185114
         m7 |  .0052181  .0066757    0.78   0.437   -.0080644   .0185006
         m8 |  .0028557  .0066808    0.43   0.670   -.0104371   .0161484
         m9 |  .0046809  .0067172    0.70   0.488   -.0086843   .0180461
        m10 |  .0038105  .0066837    0.57   0.570    -.009488   .0171091
        m11 |  .0041784  .0067647    0.62   0.539   -.0092812   .0176379
        m12 |  .0058968  .0066279    0.89   0.376   -.0072906   .0190842
       _cons | -.0021776  .0047854   -0.46   0.650    -.011699   .0073437
------------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
     Source |     SS        df     MS      Number of obs  =      96
-------------+-------------------------------    F(14, 81)     =     1.45
      Model | .003527923      14 .000251995   Prob > F      =    0.1518
   Residual | .014122397      81 .000174351   R-squared     =    0.1999
-------------+-------------------------------    Adj R-squared =    0.0616
      Total | .01765032       95 .000185793   Root MSE      =    .0132
```

```
-------------------------------------------------------------------------------
D.          |
lnavg_Week~a |     Coef.  Std. Err.    t    P>|t|    [95% Conf. Interval]
-------------+-----------------------------------------------------------------
lnavg_Week~a |
       LD. | -.3684648    .108886    -3.38   0.001   -.5851138   -.1518159
           |
  lnemp1000 |
      L2D. | .0906716    .0750435    1.21   0.230   -.0586415    .2399847
           |
lnavg_Week~r |
      L2D. | -.1572141   .1428772   -1.10   0.274   -.4414949    .1270666
           |
        m2 | .013329     .0066694    2.00   0.049    .0000589    .026599
        m3 | .0065445    .0069327    0.94   0.348   -.0072494    .0203384
        m4 | .0078173    .006697     1.17   0.247   -.0055076    .0211423
        m5 | .0025615    .0066258    0.39   0.700   -.0106218    .0157448
        m6 | .0045814    .0070368    0.65   0.517   -.0094197    .0185825
        m7 | .0038041    .0066852    0.57   0.571   -.0094974    .0171056
        m8 | .0028736    .006656     0.43   0.667   -.0103698    .0161169
```

```
  m9 |   .004746   .0066895    0.71   0.480   -.0085639    .018056

 m10 |  .0038853   .0066654    0.58   0.562   -.0093767   .0171473

 m11 |   .004293   .0067467    0.64   0.526   -.0091308   .0177169

 m12 |  .0058828   .0066092    0.89   0.376   -.0072675   .0190331

_cons | -.0022425   .0047639   -0.47   0.639   -.0117212   .0072361
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)


```
    Source |      SS         df      MS      Number of obs  =      96
-------------+----------------------------------   F(14, 81)     =     1.45
     Model | .003586481      14 .000256177   Prob > F      =    0.1512
  Residual | .014343424      81 .000177079   R-squared     =    0.2000
-------------+----------------------------------   Adj R-squared =    0.0618
     Total | .017929906      95 .000188736   Root MSE      =   .01331
```

```
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |

     LD. |  -.366968   .110288   -3.33  0.001   -.5864065  -.1475295

          |

  lnemp1000 |

    L2D. |   .108403   .0743531    1.46  0.149   -.0395363   .2563423

          |
```

lnavg_Week~r |

   L2D. | -.1718585 .1434002 -1.20 0.234   -.45718   .113463

       |

    m2 | .0135304 .0067202 2.01 0.047   .0001593 .0269016

    m3 | .0069467 .0069785 1.00 0.322 -.0069382 .0208317

    m4 | .0079658 .0067481 1.18 0.241 -.0054607 .0213924

    m5 | .0026675 .0066769 0.40 0.691 -.0106174 .0159524

    m6 | .0050722 .0070844 0.72 0.476 -.0090235   .019168

    m7 | .0040295 .0067355 0.60 0.551 -.0093721   .017431

    m8 | .0065713 .0066737 0.98 0.328 -.0067072 .0198498

    m9 | .0049885 .0067397 0.74 0.461 -.0084213 .0183984

   m10 | .0039635 .0067175 0.59 0.557 -.0094022 .0173291

   m11 | .0043965 .0067998 0.65 0.520   -.009133 .0179259

   m12 | .0059166 .0066607 0.89 0.377 -.0073361 .0191693

  _cons | -.002442 .0047994 -0.51 0.612 -.0119913 .0071073

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(14, 81)	=	1.57
Model	.003868521	14	.000276323		Prob > F	=	0.1058
Residual	.014252441	81	.000175956		R-squared	=	0.2135
					Adj R-squared	=	0.0775
Total	.018120962	95	.000190747		Root MSE	=	.01326

```
--------------------------------------------------------------------------
D.          |
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+------------------------------------------------------------
lnavg_Week~a |
       LD. | -.3769376   .1082544   -3.48   0.001   -.5923299  -.1615453
           |
 lnemp1000 |
      L2D. |  .0995761    .073385    1.36   0.179   -.0464371   .2455892
           |
lnavg_Week~r |
      L2D. | -.1909747   .1427733   -1.34   0.185   -.4750488   .0930995
           |
        m2 |  .013442    .0066967    2.01   0.048    .0001177   .0267663
        m3 |  .0067203   .0069553    0.97   0.337   -.0071185   .0205591
        m4 |  .0080687   .0067273    1.20   0.234   -.0053165   .021454
        m5 |  .0026039   .0066556    0.39   0.697   -.0106386   .0158464
        m6 |  .0046634   .0070465    0.66   0.510   -.0093568   .0186836
        m7 |  .0038643   .0067114    0.58   0.566   -.0094892   .0172178
        m8 |  .0065068   .0066517    0.98   0.331    -.006728   .0197416
        m9 |  .0008321   .0066677    0.12   0.901   -.0124345   .0140987
       m10 |  .0037843   .0066943    0.57   0.573   -.0095352   .0171039
       m11 |  .0041248    .006774    0.61   0.544   -.0093533   .017603
       m12 |  .0059523   .0066396    0.90   0.373   -.0072584   .019163
      _cons | -.0022924   .0047802   -0.48   0.633   -.0118035   .0072187
--------------------------------------------------------------------------
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS        df      MS      Number of obs  =      96
-------------+--------------------------------  F(14, 81)    =    1.54
     Model | .003757936      14 .000268424  Prob > F     =   0.1144
  Residual | .014083134      81 .000173866  R-squared    =   0.2106
-------------+--------------------------------  Adj R-squared =   0.0742
     Total | .01784107       95 .000187801  Root MSE     =   .01319
```

```
D.          |
lnavg_Week~a |     Coef.  Std. Err.    t   P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------
lnavg_Week~a |
        LD. |  -.361151  .1074955  -3.36  0.001   -.5750333  -.1472687
            |
  lnemp1000 |
       L2D. |  .0991223  .0729137   1.36  0.178   -.0459531   .2441977
            |
lnavg_Week~r |
       L2D. | -.2060739  .1423421  -1.45  0.152    -.48929   .0771423
            |
        m2 |  .0135676  .0066572   2.04  0.045    .0003218   .0268133
        m3 |  .0065151  .0069126   0.94  0.349   -.0072389   .020269
        m4 |  .0082577  .0066882   1.23  0.221   -.0050497   .0215651
        m5 |  .0025496  .0066158   0.39  0.701   -.0106138   .015713
        m6 |  .0046504  .0070043   0.66  0.509    -.009286   .0185869
```

```
    m7 |  .0038631  .0066714   0.58  0.564  -.0094108   .017137

    m8 |  .0065517  .0066121   0.99  0.325  -.0066044  .0197078

    m9 |  .0008082  .0066279   0.12  0.903  -.0123792  .0139956

   m10 |  .0051887  .0066556   0.78  0.438  -.0080538  .0184313

   m11 |  .0040275  .0067338   0.60  0.551  -.0093708  .0174257

   m12 |  .0059996  .0066001   0.91  0.366  -.0071325  .0191317

  _cons | -.0023279  .0047518  -0.49  0.626  -.0117825  .0071267
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |    SS        df     MS     Number of obs =     96
-------------+------------------------------  F(14, 81)    =    1.50
     Model | .003648169     14 .000260583  Prob > F     =  0.1291
   Residual | .014052659     81 .00017349   R-squared    =  0.2061
-------------+------------------------------  Adj R-squared =  0.0689
     Total | .017700828     95 .000186325  Root MSE     = .01317
```

```
D.         |
lnavg_Week~a |    Coef.  Std. Err.   t   P>|t|   [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
     LD. | -.3489122  .1079716  -3.23  0.002  -.5637419  -.1340825
         |
  lnemp1000 |
```

```
    L2D. |  .1010502   .0728074    1.39   0.169   -.0438137    .245914
         |

lnavg_Week~r |
    L2D. |  -.2266313   .1427087   -1.59   0.116   -.5105769    .0573143
         |
      m2 |  .013707    .0066506    2.06   0.043    .0004743    .0269397
      m3 |  .0063818   .0069067    0.92   0.358   -.0073604    .020124
      m4 |  .0084794   .0066826    1.27   0.208   -.0048169    .0217757
      m5 |  .0025135   .0066088    0.38   0.705   -.0106359    .0156629
      m6 |  .0046702   .0069967    0.67   0.506    -.009251    .0185914
      m7 |  .0038809   .0066641    0.58   0.562   -.0093786    .0171404
      m8 |  .0066053   .0066051    1.00   0.320   -.0065367    .0197473
      m9 |  .0008076   .0066207    0.12   0.903   -.0123655    .0139807
     m10 |  .0052408   .0066485    0.79   0.433   -.0079877    .0184694
     m11 |  .0037043   .0067706    0.55   0.586    -.009767    .0171756
     m12 |  .0060564   .006593     0.92   0.361   -.0070617    .0191744
    _cons |  -.0023753  .0047467   -0.50   0.618   -.0118197    .0070692
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

```
    Source |      SS         df      MS      Number of obs  =     96
-------------+----------------------------------    F(14, 81)    =    1.55
     Model | .003719111     14  .000265651   Prob > F     =    0.1125
  Residual | .013888069     81  .000171458   R-squared    =    0.2112
-------------+----------------------------------    Adj R-squared =    0.0749
```

```
     Total |   .01760718      95  .000185339   Root MSE      =    .01309
```

```
D.          |
lnavg_Week~a |     Coef.   Std. Err.     t    P>|t|    [95% Conf. Interval]
-------------+----------------------------------------------------------------
lnavg_Week~a |
        LD. | -.3581802   .1073018    -3.34   0.001   -.5716771   -.1446833
            |
   lnemp1000 |
        L2D. |  .0996659   .0723914     1.38   0.172   -.0443703    .2437021
            |
lnavg_Week~r |
        L2D. | -.2126542   .1423907    -1.49   0.139    -.495967    .0706587
            |
         m2 |   .013606   .0066123     2.06   0.043    .0004496    .0267624
         m3 |  .0064785   .0068665     0.94   0.348   -.0071837    .0201407
         m4 |  .0083246   .0066452     1.25   0.214   -.0048973    .0215465
         m5 |  .0025395    .00657     0.39   0.700   -.0105327    .0156118
         m6 |  .0046502   .0069553     0.67   0.506   -.0091888    .0184891
         m7 |  .0038662    .006625     0.58   0.561   -.0093154    .0170478
         m8 |  .0065661   .0065664     1.00   0.320   -.0064989    .0196311
         m9 |  .0008081   .0065818     0.12   0.903   -.0122876    .0139039
        m10 |   .005199   .0066093     0.79   0.434   -.0079513    .0183494
        m11 |  .0038432    .006732     0.57   0.570   -.0095515    .0172379
        m12 |  .0044847   .0065707     0.68   0.497    -.008589    .0175584
       _cons | -.0023391   .0047189    -0.50   0.621   -.0117281    .0070499
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

Source	SS	df	MS		Number of obs	=	96
					F(14, 81)	=	1.44
Model	.003492539	14	.000249467		Prob > F	=	0.1522
Residual	.013989079	81	.000172705		R-squared	=	0.1998
					Adj R-squared	=	0.0615
Total	.017481618	95	.000184017		Root MSE	=	.01314

D. lnavg_Week~a	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
lnavg_Week~a						
LD.	-.3546329	.1080765	-3.28	0.002	-.5696712	-.1395946
lnemp1000						
L2D.	.0978427	.0726246	1.35	0.182	-.0466574	.2423428
lnavg_Week~r						
L2D.	-.2059396	.1430292	-1.44	0.154	-.4905228	.0786436
m2	.0108964	.0066184	1.65	0.104	-.0022722	.024065
m3	.0037288	.0068983	0.54	0.590	-.0099967	.0174543
m4	.0055848	.0066666	0.84	0.405	-.0076797	.0188492

```
   m5 |  -.0001708   .0065973   -0.03   0.979   -.0132975   .0129558
   m6 |   .0019431   .0069473    0.28   0.780   -.0118799   .0157661
   m7 |    .001159   .0066366    0.17   0.862   -.0120458   .0143638
   m8 |   .0038624   .0065825    0.59   0.559   -.0092347   .0169595
   m9 |  -.0019071   .0066048   -0.29   0.774   -.0150485   .0112343
  m10 |   .0025229   .0066117    0.38   0.704   -.0106324   .0156781
  m11 |   .0011882   .0067459    0.18   0.861    -.012234   .0146103
  m12 |   .0017648   .0065969    0.27   0.790    -.011361   .0148907
 _cons |   .0003628   .0047147    0.08   0.939   -.0090179   .0097436
```

(0 real changes made)

(option xb assumed; fitted values)

(207 missing values generated)

(1 real change made)

.

. gen res=d.lnemp1000-pred

variable res already defined

r(110);

.

. gen errsq=res^2

variable errsq already defined

r(110);

.

. summ errsq

```
    Variable |     Obs     Mean   Std. Dev.     Min      Max
-------------+-------------------------------------------------------
       errsq |      71   .003911   .0231299   4.21e-09  .1884714
```

.

. scalar RWrmse96=r(mean)^.5

.

. summ nobs

```
    Variable |     Obs     Mean   Std. Dev.     Min      Max
-------------+-------------------------------------------------------
        nobs |      71      96        0       96       96
```

.

. scalar RWminobs96=r(min)

.

. scalar RWmaxobs96=r(max)

.

.

.

. scalar list

RWmaxobs96 =   96

RWminobs96 =   96

 RWrmse96 = .06253767

.

. ***

.

. *Forecast from selected model for dlnavg_WeekDolla

.

.

.

. reg d.lnavg_WeekDolla ld.lnavg_WeekDolla l(2)d.lnemp1000 l(2)d.lnavg_WeekHour
> m2 m3 m4 m5 m6 m7 m8 m9 m10 m11 m12 if tin(2017m1,2021m2)


```
    Source |      SS        df     MS      Number of obs  =      50
-------------+---------------------------------  F(14, 35)    =    1.18
     Model | .003550038      14 .000253574  Prob > F      =   0.3340
   Residual | .007539512      35 .000215415  R-squared     =   0.3201
-------------+---------------------------------  Adj R-squared =   0.0482
     Total | .011089551      49 .000226317  Root MSE      =  .01468
```

```
--------------------------------------------------------------------------
D.          |
lnavg_Week~a |    Coef.  Std. Err.    t   P>|t|   [95% Conf. Interval]
-------------+------------------------------------------------------------
lnavg_Week~a |
       LD. | -.3619907  .1673567   -2.16  0.037   -.701743  -.0222385
           |
  lnemp1000 |
      L2D. |  .1164856  .0891549    1.31  0.200   -.0645084   .2974796
```

```
                |
lnavg_Week~r |
       L2D. | -.1593282   .2123744   -0.75  0.458   -.5904712   .2718149
                |
         m2 |  .0088263   .0094059    0.94  0.354   -.0102686   .0279212
         m3 |  .0040121   .0102423    0.39  0.698   -.0167809    .024805
         m4 |  .0123122   .0099976    1.23  0.226    -.007984   .0326083
         m5 | -.0032114   .0100966   -0.32  0.752   -.0237087   .0172858
         m6 |  .0002329   .0109857    0.02  0.983   -.0220692   .0225351
         m7 |  .0031586   .0100018    0.32  0.754   -.0171461   .0234633
         m8 |   .001278   .0099175    0.13  0.898   -.0188556   .0214115
         m9 | -.0104901   .0098834   -1.06  0.296   -.0305546   .0095743
        m10 |  .0045974   .0100682    0.46  0.651   -.0158422    .025037
        m11 | -.0038309   .0103791   -0.37  0.714   -.0249015   .0172398
        m12 | -.0007654   .0103372   -0.07  0.941    -.021751   .0202203
       _cons |  .0039654   .0066355    0.60  0.554   -.0095053   .0174361
--------------------------------------------------------------------------------


.

. predict temp if date==tm(2021m3)
variable temp already defined
r(110);


.

. replace pred=temp if date==tm(2021m3)
(0 real changes made)


.
```

.

.

. *Empirical forecast and interval for dlnavg_WeekDolla

.

. gen expres=exp(res)

variable expres already defined

r(110);

.

. summ expres

Variable	Obs	Mean	Std. Dev.	Min	Max
expres	71	1.007144	.0740928	.8345599	1.543624

.

. gen epy=exp(l.lnavg_WeekDolla+pred)*r(mean)

variable epy already defined

r(110);

.

. _pctile res, percentiles(2.5,97.5)

.

.

.

. gen eub=epy*exp(r(r2))

variable eub already defined

r(110);

.

. gen elb=epy*exp(r(r1))

variable elb already defined

r(110);

.

. twoway (scatter avg_weekly_dollar date if tin(2017m1,2021m2) , m(Oh)) (tslin
> e epy eub elb if tin(2017m1,2021m3) , lpattern(solid dash dash) lcolor(black
> gs10 gs10)) , saving(ps5_fcst, replace) scheme(s1mono) ylabel(,grid) xtitle(
> "") legend(label(1 " Average Weekly Earnings") label(2 "Forecast") label(3 "9
> 5% Upper Bound") label(4 "95% Lower Bound")) title(" Average Weekly Earning
> s" "One Month Ahead Emprical Forecast")
(file ps5_fcst.gph saved)

.

.

.

. graph export ps5empfcst.emf, replace
(file C:\Users\Jing Jing\Desktop\Orlando Time Series Project\ps5empfcst.emf wri
> tten in Enhanced Metafile format)

.

.

.

. list epy eub elb if date==tm(2021m3)

```
   +------------------------------+
   |   epy      eub      elb |
   |------------------------------|
375. | 1047.894   1287.049   936.7554 |
   +------------------------------+
```

.

.

.

.

.

.

.

. *Normal forecast and interval for dlnavg_WeekDolla

.

. * 2 sigma interval

.

. gen npy=exp(l.lnavg_WeekDolla+pred+(RWrmse96^2)/2)
variable npy already defined
r(110);

.

. gen nub=npy*exp(2*RWrmse96)
variable nub already defined
r(110);

.

. gen nlb=npy/exp(2*RWrmse96)

variable nlb already defined

r(110);

.

.

.

.

.

.

.

.

.

. twoway (scatter avg_weekly_dollar date if tin(2017m1,2021m2) , m(Oh)) (tslin
> e npy nub nlb if tin(2017m1,2021m3) , lpattern(solid dash dash) lcolor(black
> gs10 gs10)) , saving(ps5_fcst, replace) scheme(s1mono) ylabel(,grid) xtitle(
> "") legend(label(1 " Average Weekly Earnings") label(2 "Forecast") label(3 "9
> 5% Upper Bound") label(4 "95% Lower Bound")) title(" Average Weekly Earnings
> " "One Month Ahead Normal Forecast") note("1) All forecasts are out of sample
> based on a 96 month rolling window." "2) Inteval based on percentiles +-1.95
> RMMSE from the rolling window procedure." "3) Predictors are lags 3, 4, 12,
> 24 of private employment and lag 4 of the US emp:pop ratio.")
(file ps5_fcst.gph saved)

.

.

.

. graph export ps5normfcst.emf, replace

(file C:\Users\Jing Jing\Desktop\Orlando Time Series Project\ps5normfcst.emf wr

> itten in Enhanced Metafile format)

.

.

.

. list npy nub nlb if date==tm(2021m3)


```
     +-------------------------------+
     |   npy      nub       nlb |
     |-----------------------------|
375. | 1042.497   1181.393   919.9315 |
     +-------------------------------+
```


.

.

.

.

.

. hist res, frac normal scheme(s1mono) title(" Average Weekly Earnings Empiric

> al Forecast Error Distribution") xtitle("") note("Private Employment for Marc

> h For 96 month rolling window forecasts.")

(bin=8, start=-.18085083, width=.07687297)

.

. graph export ps5errdist.emf , replace

(file C:\Users\Jing Jing\Desktop\Orlando Time Series Project\ps5errdist.emf wri

> tten in Enhanced Metafile format)

.

.

.

. summ res

```
    Variable |      Obs      Mean   Std. Dev.     Min       Max
-------------+-------------------------------------------------------
         res |       71    .0049691   .0627836  -.1808508   .434133
```

.

. gen nres=(res-r(mean))/r(sd)

variable nres already defined

r(110);

.

.

.

. qnorm nres, scheme(s1mono) title(" Average Weekly Earnings Quantile-Normal P

> lot of Forecast Error") xtitle("Inverse Standard Normal of Residual Percentil

> e") ytitle("Residual Z-Score") xlabel(-6(2)4,grid) ylabel(-6(2)4,grid) note("

> Private Employment for March For 96 month rolling window forecasts.")

.

. graph export ps5qnorm.emf , replace

(file C:\Users\Jing Jing\Desktop\Orlando Time Series Project\ps5qnorm.emf writt

> en in Enhanced Metafile format)

. log close

    name: <unnamed>

    log: C:\Users\Jing Jing\Desktop\Orlando Time Series Project\Hasegawa Or

> lando Project.smcl

 log type: smcl

 closed on: 30 Apr 2021, 14:47:12