Note on the Z.1 Forecast Re-estimations

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The Federal Reserve has made significant revisions to series in its Financial Accounts of the United States – Z.1 release. As a result, historical data have changed significantly for some of the most important series in the model, including FCS$_US and FCN$_US, which are two NIPA components that get injected directly into the FGDP$ bloodstream, affecting our interest rate, unemployment rate and inflation rate forecasts and touching every series in the model.

In response, we re-estimated our stochastic equations for FCN$_US, FCNFAB$_I_US, and FIFRSOT$ to capture the new historical data. We made no changes to the specifications of these variables, as testing revealed that the current specifications are performing well.

New equation specifications

Dependent Variable: DLOG(FCN$_US/FPOP_US)
Method: Least Squares
Date: 10/01/19 Time: 12:35
Sample (adjusted): 1991Q3 2016Q4
Included observations: 102 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(@MOVAV(((FYPDPI$Q_US)/FPOP_US),2))	0.239559	0.092138	2.599999	0.0108
D(@MOVAV(((FOCF$_US)/FPOP_US),2))	0.001352	0.000997	1.356802	0.1780
DLOG(@MOVAV(FNWRE$_US(-1)/FPOP_US(-1),4))	0.062368	0.024355	2.560757	0.0120
DLOG(@MOVAV(FNWFA$_US(-1)/FPOP_US(-1),4))	0.122144	0.048284	2.529702	0.0130
DLOG(FSPVOL_US)	-0.004050	0.001740	-2.327205	0.0220

R-squared	0.306586	Mean dependent var	0.002715
Adjusted R-squared	0.277992	S.D. dependent var	0.006135
S.E. of regression	0.005213	Akaike info criterion	-7.627558
Sum squared resid	0.002636	Schwarz criterion	-7.498883
Log likelihood	394.0055	Hannan-Quinn criter.	-7.575453
Durbin-Watson stat	2.444908		

Mnemonics referenced in the above equation, for example FET, can be defined using the Mnemonic 411 feature on DataBuffet. Please contact Help@economy.com for assistance.

Dependent Variable: DLOG(FCNFAB$_I_US/FPOP_US)
Method: Least Squares
Date: 10/01/19 Time: 12:51
Sample (adjusted): 1991Q3 2016Q4
Included observations: 102 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(@MOVAV(((FYPDPI$Q_US+FOCF$_US)/FPOP_US),2))	0.089256	0.047646	1.873319	0.0640
DLOG(@MOVAV(FNWRE$_US(-1)/FPOP_US(-1),4))	0.068375	0.025287	2.703970	0.0081
DLOG(@MOVAV(FNWFA$_US(-1)/FPOP_US(-1),4))	0.025968	0.048509	0.535315	0.5936
DLOG(FSPVOL_US)	-0.005110	0.001790	-2.854143	0.0053

R-squared	0.240422	Mean dependent var	0.000753
Adjusted R-squared	0.217170	S.D. dependent var	0.006142
S.E. of regression	0.005434	Akaike info criterion	-7.553898
Sum squared resid	0.002894	Schwarz criterion	-7.450958
Log likelihood	389.2488	Hannan-Quinn criter.	-7.512214
Durbin-Watson stat	2.134167		

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Dependent Variable: DLOG(FIFRSOT$_US)
Method: Least Squares
Date: 10/02/19 Time: 10:47
Sample (adjusted): 1991Q3 2016Q4
Included observations: 102 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(FHX1_US)	0.436381	0.027462	15.89011	0.0000
DLOG(@MOVAV((FYPDPI$Q_US+FOCF$_US),2))	0.308373	0.104087	2.962642	0.0038
DLOG(@MOVAV(FNWRE$_US(-1),4))	0.180368	0.063735	2.829977	0.0056
D(FSPVOL_US)	-0.005266	0.003157	-1.667735	0.0986

R-squared	0.758939	Mean dependent var	0.006514
Adjusted R-squared	0.751560	S.D. dependent var	0.028654
S.E. of regression	0.014282	Akaike info criterion	-5.621166
Sum squared resid	0.019990	Schwarz criterion	-5.518226
Log likelihood	290.6795	Hannan-Quinn criter.	-5.579482
Durbin-Watson stat	1.755608		

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Previous equation specifications

Dependent Variable: DLOG(FCN$_US/FPOP_US)
Method: Least Squares
Date: 08/03/18 Time: 15:25
Sample (adjusted): 1991Q3 2017Q2
Included observations: 104 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(@MOVAV(((FYPDPI$Q_US)/FPOP_US),2))	0.272750	0.092302	2.954970	0.0039
D(@MOVAV(((FOCF$_US)/FPOP_US),2))	0.001042	0.001069	0.974971	0.3320
DLOG(@MOVAV(FNWRE$_US(-1)/FPOP_US(-1),4))	0.038594	0.020226	1.908138	0.0593
DLOG(@MOVAV(FNWFA$_US(-1)/FPOP_US(-1),4))	0.113049	0.046410	2.435849	0.0166
DLOG(FSPVOL_US)	-0.004689	0.001786	-2.625151	0.0100

R-squared	0.274435	Mean dependent var	0.002955
Adjusted R-squared	0.245119	S.D. dependent var	0.006189
S.E. of regression	0.005377	Akaike info criterion	-7.566479
Sum squared resid	0.002862	Schwarz criterion	-7.439344

Log likelihood	398.4569	Hannan-Quinn criter.	-7.514973
Durbin-Watson stat	2.422269		

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Dependent Variable: DLOG(FCNFAB$_I_US/FPOP_US)
Method: Least Squares
Date: 09/28/17 Time: 11:41
Sample (adjusted): 1991Q3 2017Q2
Included observations: 104 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(@MOVAV(((FYPDPI$Q_US+FOCF$_US)/FPOP_US),2))	0.079445	0.049875	1.592878	0.1143
DLOG(@MOVAV(FNWRE$_US(-1)/FPOP_US(-1),4))	0.034985	0.021329	1.640260	0.1041
DLOG(@MOVAV(FNWFA$_US(-1)/FPOP_US(-1),4))	0.050797	0.048195	1.053990	0.2944
DLOG(FSPVOL_US)	-0.006329	0.001930	-3.279276	0.0014

R-squared	0.228519	Mean dependent var	0.000508
Adjusted R-squared	0.205374	S.D. dependent var	0.006605
S.E. of regression	0.005887	Akaike info criterion	-7.394312
Sum squared resid	0.003466	Schwarz criterion	-7.292604
Log likelihood	388.5042	Hannan-Quinn criter.	-7.353107
Durbin-Watson stat	2.052779		

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Dependent Variable: DLOG(FIFRSOT$_US/FPOP_US)
Method: Least Squares
Date: 07/05/18 Time: 10:27
Sample (adjusted): 1991Q3 2015Q4
Included observations: 98 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(FHX1_US)	0.439357	0.027754	15.83016	0.0000
DLOG(@MOVAV(((FYPDPI$Q_US+FOCF$_US)/FPOP_US),2))	0.199343	0.117662	1.694200	0.0935
DLOG(@MOVAV(FNWRE$_US(-1)/FPOP_US(-1),4))	0.129029	0.049848	2.588448	0.0112
DLOG(FSPVOL_US)	-0.007907	0.004939	-1.601006	0.1127

R-squared	0.763415	Mean dependent var	0.003860
Adjusted R-squared	0.755865	S.D. dependent var	0.029042
S.E. of regression	0.014350	Akaike info criterion	-5.610200
Sum squared resid	0.019356	Schwarz criterion	-5.504691
Log likelihood	278.8998	Hannan-Quinn criter.	-5.567524
Durbin-Watson stat	1.765884		

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