Data Manifest for Campbell, Evans, Fisher, and Justiniano (2012)

This data manifest lists the sources of all observations used to calculate the results reported in the paper. For each source, we list the tables and figures it influences.

Expected Policy Path

To compute the expected path of the federal funds rate we rely on federal funds rate (FFR) futures and Eurodollar futures.

Rates implied by federal funds futures are based on the 30-day interest future contract taken at the close of trading, where the contract is based on the average FFR for the settlement month. We also add a 1 basis point per month term premium. Before March 15 2004, we only have FFR futures expiring at the end of the current and next two months. After that date the expiration of FFR contracts extends up to 6 months into the future.

Rates implied by Eurodollar futures are based on the settlement prices of Eurodollar future contracts traded on the CME. As in the previous case, we add a 1 basis point per month term premium. In addition, since these contracts settle on LIBOR rates, we further adjust the implied rates using daily quotes on LIBOR versus federal funds rate basis swaps.

Based on these data, policy surprises are constructed as the one day change in the implied FFR for contracts expiring at the end of the current month, as well as 1 through K quarters into the future. Changes are measured as the difference between the implied rates in the day of the FOMC statement or announcement and those in the prior business day.

For the analysis prior to 2007, the data are given in the worksheet *fiveContractsLessSep11* of the Excel file *GSSdata*. In this case K=4, i.e. rates extend up to 4 quarters in the future. The 5 variables included are as follows:

- **t_0difScaled**: daily change in the rate implied by the FFR futures contract expiring at the end of the current month. This is adjusted for the (difference across dates) in the number of days remaining in the contract, as explained in Kuttner, "Monetary Policy Surprises and Interest Rates: Evidence from the Fed Funds Futures Market," *Journal of Monetary Economics*, Volume 47 No. 3, June 2001, pp. 523-544.
- **q_1dif:** After March 15 2004, daily change in the rate implied by the FFR futures contract expiring at the end of 3 months from the current month. Before March 15, as

mentioned, we do not have data on FFR futures past two months into the future, which forces us to adopt the following convention. If the date—of the FOMC meeting/announcement—is in the first month of the quarter, then we use the implied rate according to the Eurodollar futures expiring next quarter. For the second and third months in the quarter, instead, we use the FFR futures two months hence. Unfortunately, as a result, policy surprises in the first month of the quarter correspond to contracts expiring at a longer horizon than for the remaining two months in the quarter.

- **q_<j>dif for j=2, 3 and 4**: daily changes in the rate implied by Eurodollar futures expiring <j> quarters ahead.

  As explained in the text, we exclude Sep 17 2001 in inferring the factors and subsequent analysis.

  For the crisis period, data are given in the worksheet *sevenContractsAllMeetings* in the same file, with K=6. The first five variables are as above, except that we can now rely on FFR futures only for **q_1dif,** for reasons already explained. We add two additional horizons, **q_5dif and q_6dif,** measured with the Eurodollar contracts expiring 5 and 6 quarters ahead, respectively.

  The expected policy path is an input into Tables 1-7 and Figure 1.

Other Asset Prices

The regressions in Section 2 use the following asset price series:

- Market yield on U.S. Treasury securities at 2-year constant maturity, quoted on investment basis, from Federal Reserve Release H15. Daily Frequency (Federal Reserve Unique Identifier: H15/H15/RIFLGFCY02_N.B). Downloaded from Haver Analytics (Mnemonic FCM2@DAILY).
- Market yield on U.S. Treasury securities at 5-year constant maturity, quoted on investment basis, from Federal Reserve Release H15. Daily Frequency (Federal Reserve Unique Identifier: H15/H15/RIFLGFCY05_N.B). Downloaded from Haver Analytics (Mnemonic FCM5@DAILY).
- Market yield on U.S. Treasury securities at 10-year constant maturity, quoted on investment basis, from Federal Reserve Release H15. Daily Frequency (Federal Reserve Unique Identifier: H15/H15/RIFLGFCY10_N.B). Downloaded from Haver Analytics (Mnemonic FCM10@DAILY).

- Moody's Yield on Seasoned Corporate Bonds – All Industries, AAA; from Federal Reserve Release H15. Daily Frequency (Federal Reserve Unique Identifier: H15/H15/RIMLPAAAR_N.B). Downloaded from Haver Analytics (Mnemonic FAAA@DAILY).
- Moody's Yield on Seasoned Corporate Bonds – All Industries, BAA; from Federal Reserve Release H15. Daily Frequency (Federal Reserve Unique Identifier: H15/H15/RIMLPBAAR_N.B). Downloaded from Haver Analytics (Mnemonic FBAA@DAILY).

These series influence Tables 2 and 6.

Blue Chip Economic Indicators®

We use the Blue Chip Economic Indicators® Archive of U.S. Consensus Forecasts to measure private expectations of inflation and unemployment for the previous quarter, the current quarter, and the four following quarters. We use this for two tasks, estimating the responses of private forecasts to monetary policy innovations (reported in Tables 3 and 6) and estimating the interest rate rule and its associated forward guidance.

Blue Chip surveys its respondent forecasters once a month about macroeconomic conditions for all incomplete quarters in the current and next calendar year as well as about the most recently completed quarter in January, April, July, and October. These monthly observations of quarterly expectations are what we use to estimate the responses of private forecasts to monetary policy innovations. For the interest rate rule estimation, we measure expectations as of the beginning of the current quarter. For this, we employ the consensus forecasts drawn from the survey conducted at the beginning of each quarter's first month and published on or about the 10th of that month. Our estimation also requires measures of long-run expectations for inflation and unemployment. For this, we use the most recently reported consensus average forecast for the 7-11 years following the current calendar year. Blue Chip reports these each March and October. These are *not* in the Archive, so we obtained these from available hard copies of the Blue Chip Economic Indicators® report.

To be more specific we use

- The consensus forecast of the Unemployment Rate for the previous quarter and the next four quarters from January 1989 through December 2011. Only the

expectations reported in a quarter's first month enter the interest rate rule estimation.

- The consensus forecast of the Unemployment Rate for the previous as reported from the survey conducted at the beginning of each quarter's first month, from 1982:II through 2011:IV
- The consensus forecast of the Unemployment Rate averaged across the 7 to 11 calendar years following the current calendar year as given in the March and October reports from 1989 through 2011.
- The consensus forecast of Consumer Price Index Inflation for the previous quarter and the next four quarters from January 1989 through December 2011. Only the expectations reported in a quarter's first month enter the interest rate rule estimation.
- The consensus forecast of Consumer Price Index Inflation for the previous as reported from the survey conducted at the beginning of each quarter's first month, from 1982:II through 2011:IV

The Blue Chip data influence Tables 3, 7, 8, and 9; Figures 2, 3, and 4; the estimated interest rate rule reported in Section II.B; and the correlation matrix reported in Section II.C.

Bureau of Labor Statistics Data

The estimation of the interest rate rule uses seasonally adjusted observations of the Civilian Unemployment Rate (Haver Mnemonic LR@USECON) and the Consumer Price Index for Urban Consumers, All Items (Haver Mnemonic PCU@USECON).

DSGE

The main code is *DSGEMain.m*. To run this code you will also need a valid license for Matlab's *Optimization* Toolbox, NONE of whose components are included here.

Matlab is a product of Mathworks, see www.mathworks/com for further details on these toolboxes.

Note that when this code runs, all m-files in the subfolder *Utilities* will be added to the toolbox cache and may conflict with your own m-files if the names match.

The code loads the workspace BrookingsWorkspace.mat, which includes the following variables.

- **Y**: vector of model observables for 2011q4. For data sources and definitions, please refer to the SummaryForResearchers.pdf. The ordering of the variables is as follows
    1. Nominal Per Capita GDP Growth
    2. Nominal Per Capita Consumption Growth, defined as consumption in non-durables and services
    3. Nominal Per Capita Investment Growth, defined as durable consumption & private Investment
    4. Hours in the NFBS
    5. Nominal wage growth in the NFBS
    6. Federal Funds rate
    7. Inflation in the Investment deflator (chain weighted durable consumption & private investment)
    8. Inflation in the GDP deflator
    9. Inflation in the consumption deflator (chain weighted consumption of non-durables and services)
    10. Inflation in Core PCE
    11. Inflation in Core CPI
    12. Credit spread
    13. Expected average inflation over 10 years, survey of professional forecasters.
    14. Credit to GDP ratio
    15. Through 24. Expected FFR for quarters 1 through ten.
- **Param**: vector of estimated and calibrated parameters for the two samples. For further details, please refer to the SummaryForResearchers.pdf
- **KFSTRU**: structure with three fields. The fields smoothSt and filteredSt correspond to the row vectors of smooth and filtered states for all variables in the model in 2011Q4. Since this is the last quarter of data these are identical. The field innovation corresponds to the smooth vector of innovations inferred for that same quarter.

Please note that the solution of the model uses the Anderson and Moore Algorithm. The set of codes that compute the solution are stored under **utilities\gensystoama** and were written by Gary Anderson at the FRB of Governors. For details, please refer to Anderson, G. and Moore, G., "A Linear Algebraic Procedure for Solving Linear Perfect Foresight Models.", Economic Letters, 17, 1985.