

***NOT FOR PUBLICATION**

Online Appendix: “China’s Monetary Policy in A Time Varying Parameter Vector Autoregression Model”

By Bin Wang and Buben Fu.

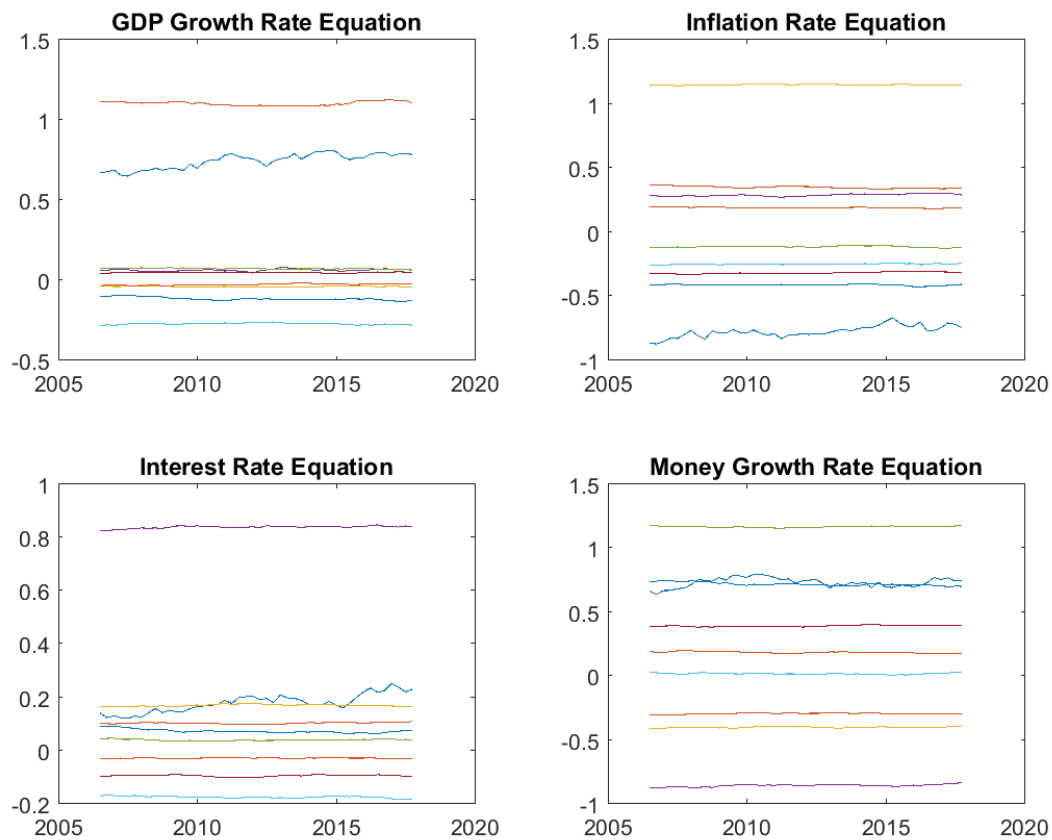
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A Discussion: Change the Priors

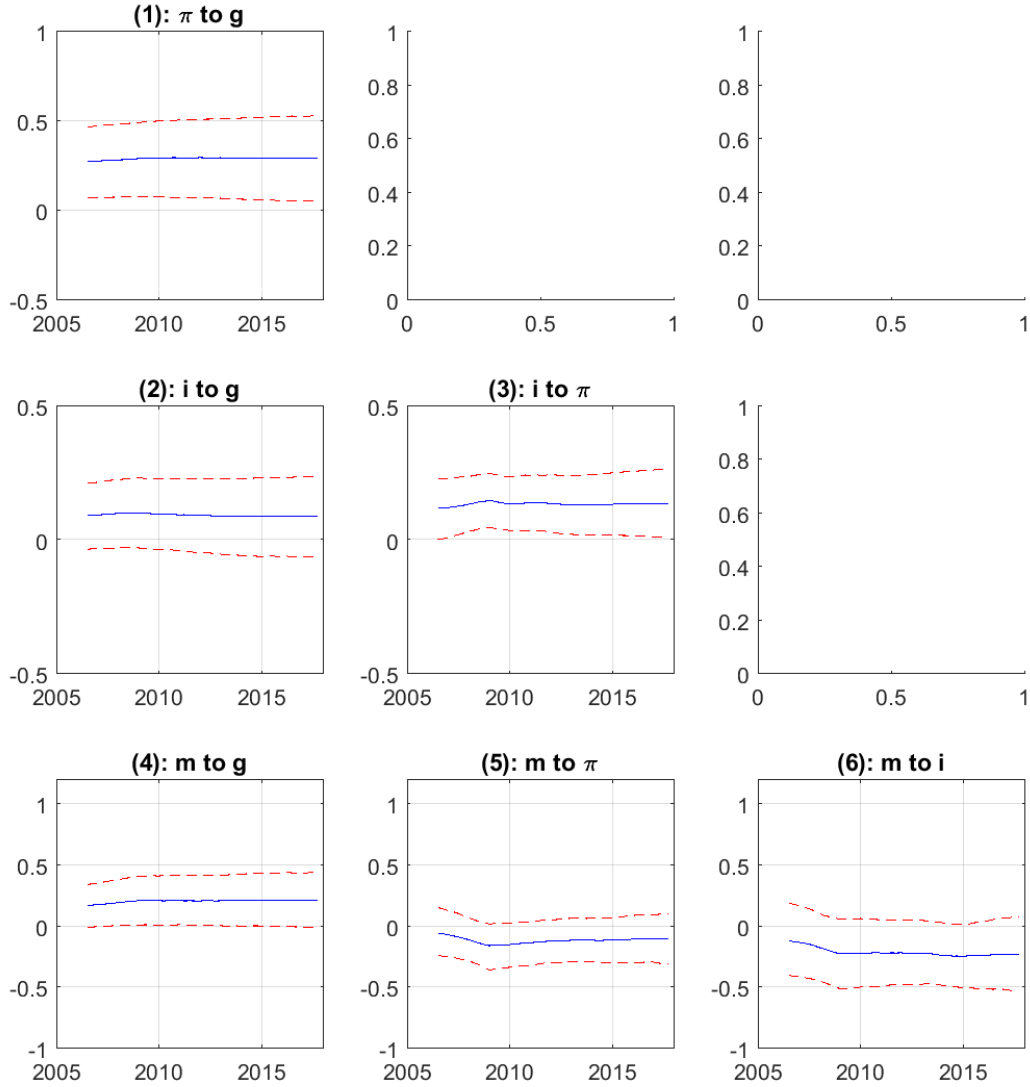
In this section, we use the data of 1996-2005 to calibrate the priors instead of 1996-1999.

Figure A-1: Posterior Median Estimates of β_t



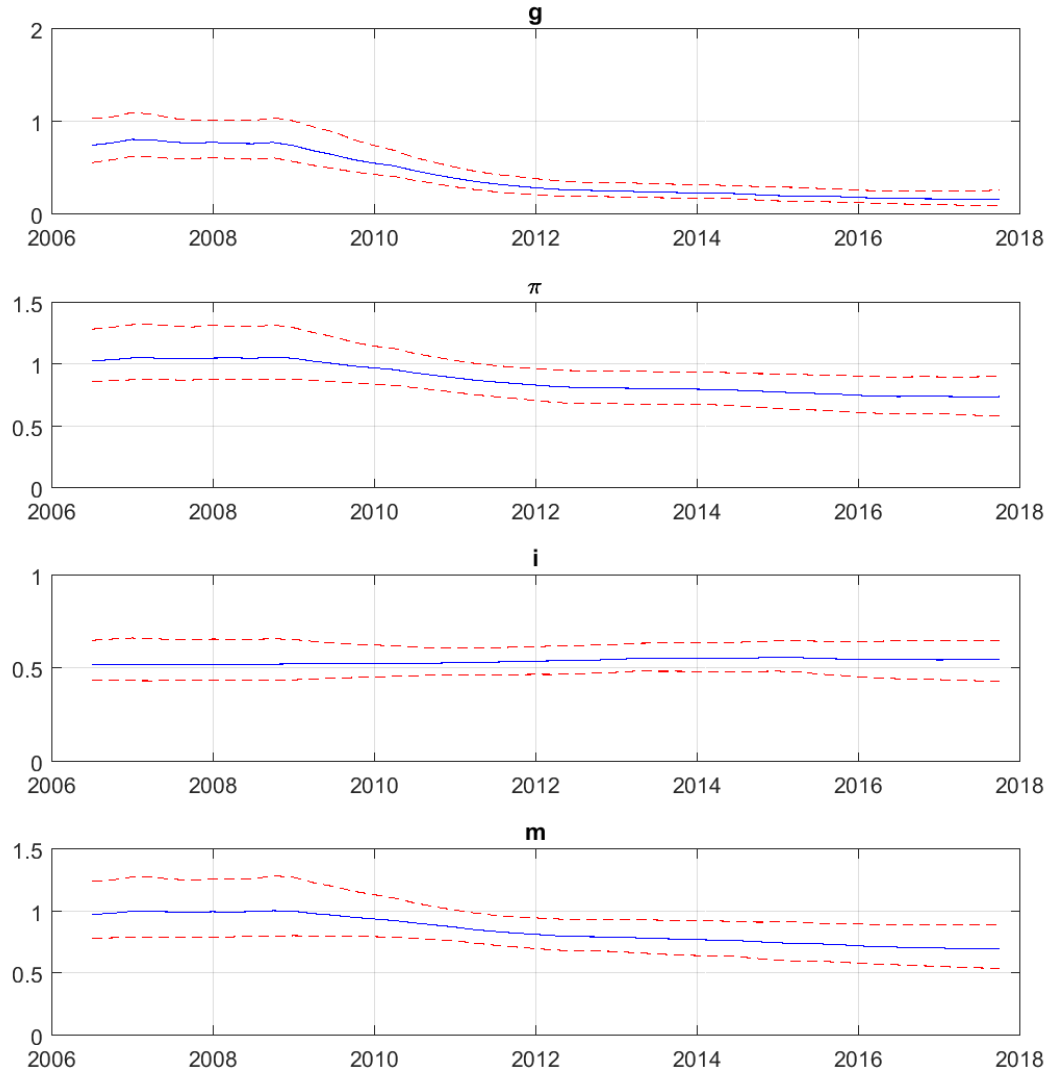
Note: We sample 10000 draws from the posterior distribution and discard the first 2000 draws as the burnin process. The graph shows the posterior medians of the selected draws of every parameter. Each panel corresponds to the parameters of one equation in the VAR.

Figure A-2: Posterior Median and 16th/86th Percentile Estimates of $-\alpha_t$



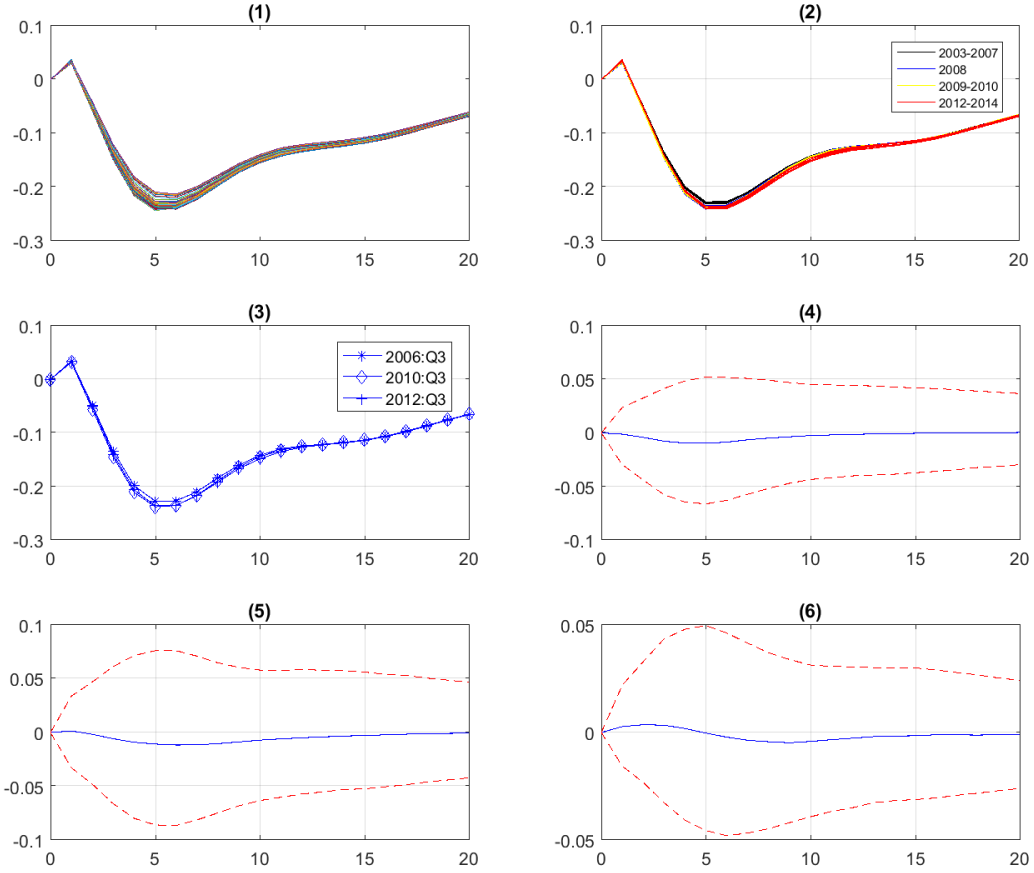
Note: We sample 10000 draws from the posterior distribution and discard the first 2000 draws as the burnin process. The graph shows the posterior medians and 16th/86th percentiles of the selected draws of every parameter.

Figure A-3: Posterior Median and 16th/86th Percentiles of σ_t



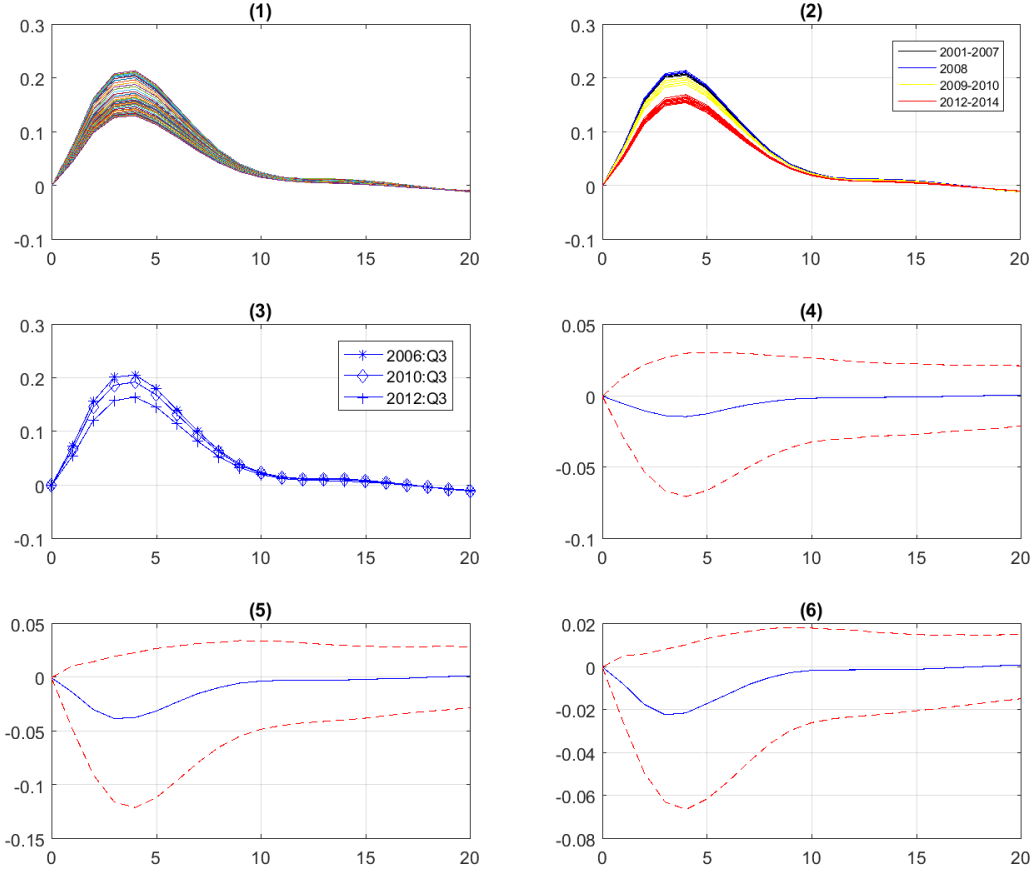
Note: We sample 10000 draws from the posterior distribution and discard the first 2000 draws as the burnin process. The graph shows the posterior medians and 16th/86th percentiles of the selected draws of every parameter.

Figure A-4: Impulse Response Functions of GDP Growth Rate to 1% Interest Rate Shock



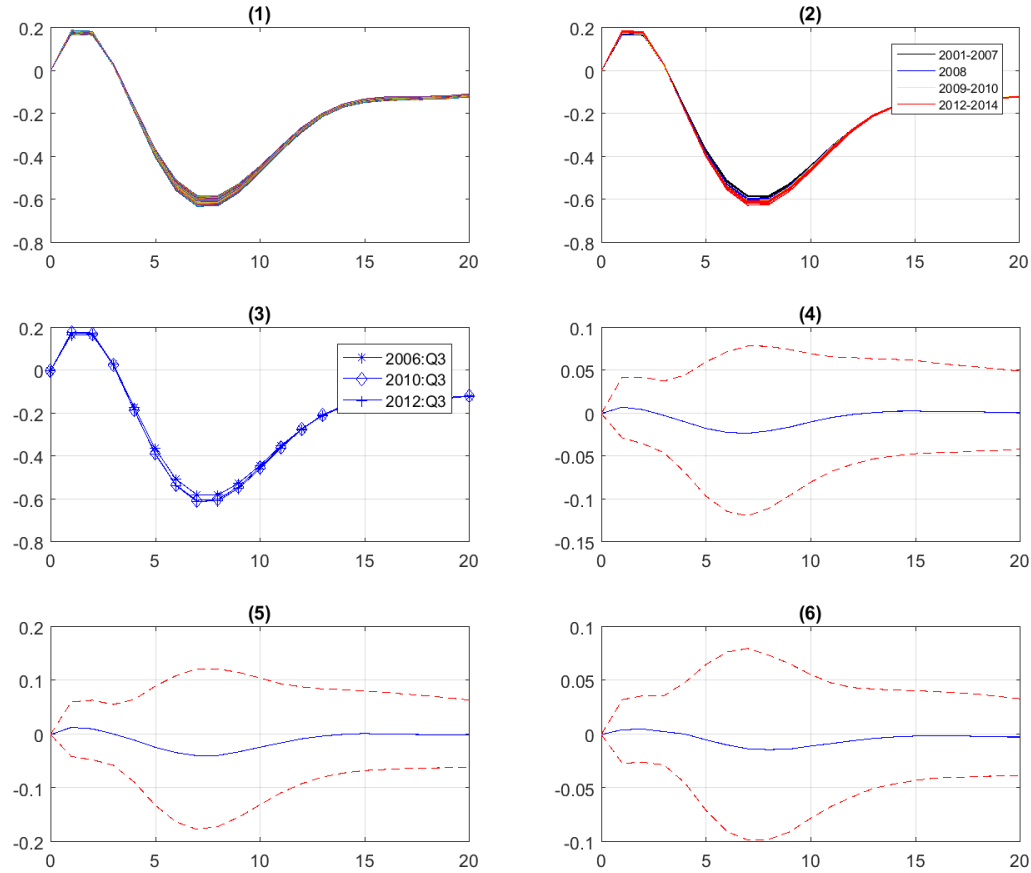
Note: We compute the impulse response functions using the parameter values of the corresponding time slot. (1) median impulse responses of GDP growth rate to 1 % interest rate shock of all quarters from 2001:Q3 to 2017:Q4, (2) median impulse responses in four episodes: 2001-2007, 2008, 2009-2010, and 2012-2014, (3) median impulse responses in 2006:Q3, 2010:Q3, and 2012:Q3 (4) difference between the responses in 2006:Q3 and 2010:Q3 with 16th and 84th percentiles, (5) difference between the responses in 2006:Q3, 2012:Q3 with 16th and 84th percentiles, (6) difference between the responses in 2010:Q3 and 2012:Q3 with 16th and 84th percentiles.

Figure A-5: Impulse Response Functions of GDP Growth Rate to 1% Money Growth Rate Shock



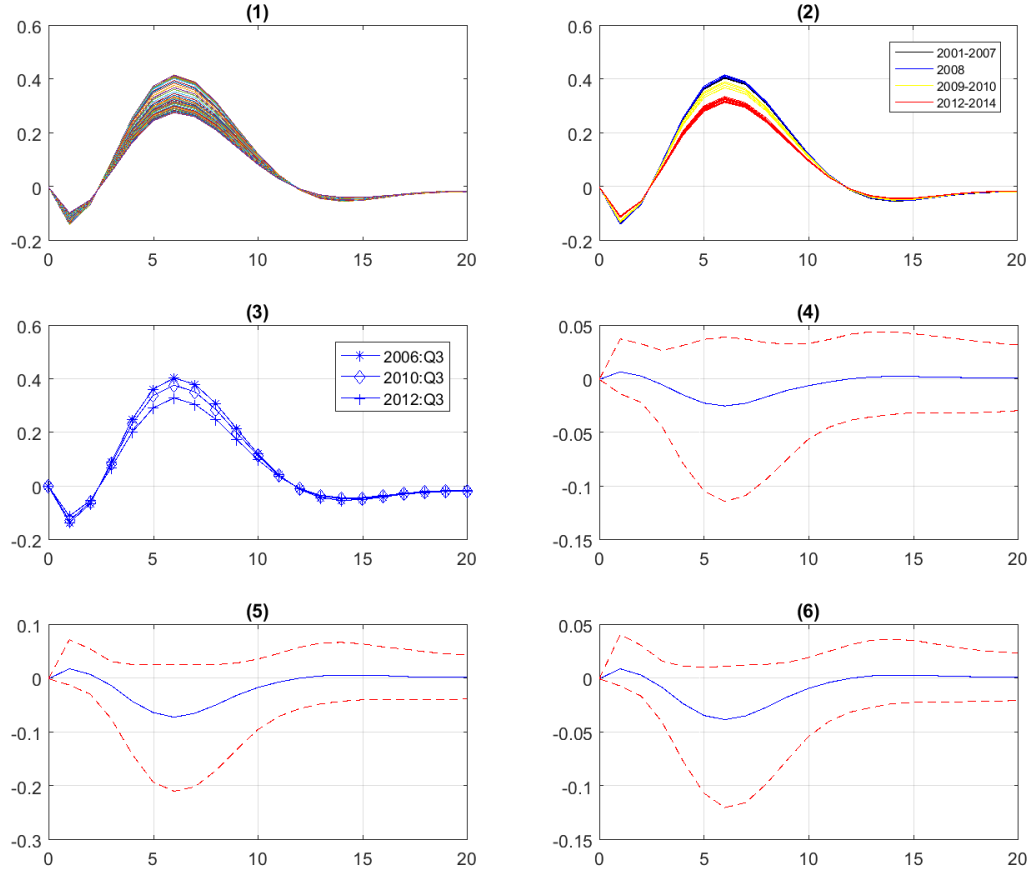
Note: We compute the impulse response functions using the parameter values of the corresponding time slot. (1) median impulse responses of GDP growth rate to 1 % money growth rate shock of all quarters from 2001:Q3 to 2017:Q4, (2) median impulse responses in four episodes: 2001-2007, 2008, 2009-2010, and 2012-2014, (3) median impulse responses in 2006:Q3, 2010:Q3, and 2012:Q3 (4) difference between the responses in 2006:Q3 and 2010:Q3 with 16th and 84th percentiles, (5) difference between the responses in 2006:Q3, 2012:Q3 with 16th and 84th percentiles, (6) difference between the responses in 2010:Q3 and 2012:Q3 with 16th and 84th percentiles.

Figure A-6: Impulse Response Functions of Inflation Rate to 1% Interest Rate Shock



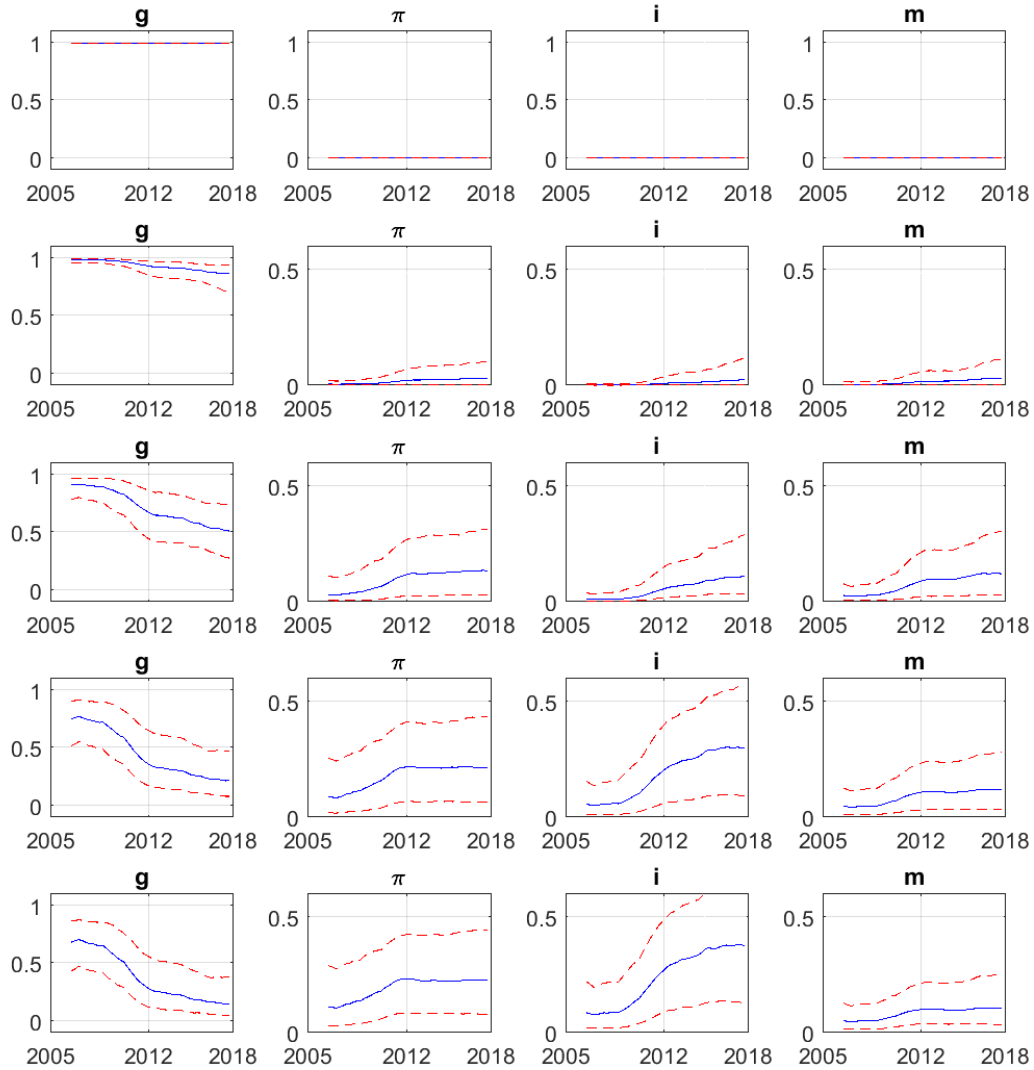
Note: We compute the impulse response functions using the parameter values of the corresponding time slot. (1) median impulse responses of inflation rate to 1 % interest rate shock of all quarters from 2001:Q3 to 2017:Q4, (2) median impulse responses in four episodes: 2001-2007, 2008, 2009-2010, and 2012-2014, (3) median impulse responses in 2006:Q3, 2010:Q3, and 2012:Q3 (4) difference between the responses in 2006:Q3 and 2010:Q3 with 16th and 84th percentiles, (5) difference between the responses in 2006:Q3, 2012:Q3 with 16th and 84th percentiles, (6) difference between the responses in 2010:Q3 and 2012:Q3 with 16th and 84th percentiles.

Figure A-7: Impulse Response Functions of Inflation Rate to 1% Money Growth Rate Shock



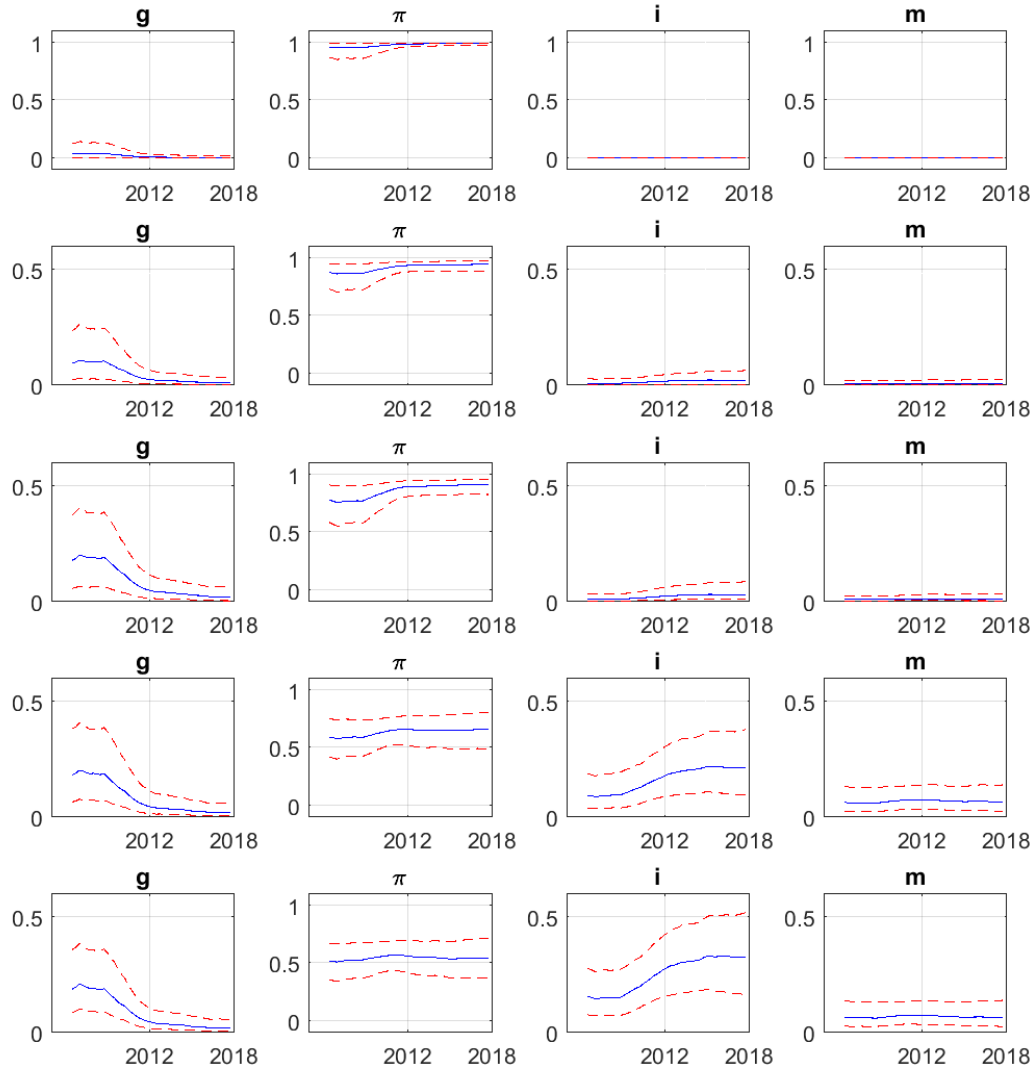
Note: We compute the impulse response functions using the parameter values of the corresponding time slot. (1) median impulse responses of inflation rate to 1 % money rate shock of all quarters from 2001:Q3 to 2017:Q4, (2) median impulse responses in four episodes: 2001-2007, 2008, 2009-2010, and 2012-2014, (3) median impulse responses in 2006:Q3, 2010:Q3, and 2012:Q3 (4) difference between the responses in 2006:Q3 and 2010:Q3 with 16th and 84th percentiles, (5) difference between the responses in 2006:Q3, 2012:Q3 with 16th and 84th percentiles, (6) difference between the responses in 2010:Q3 and 2012:Q3 with 16th and 84th percentiles.

Figure A-8: Forecast Error Variance Decomposition of GDP Growth Rate



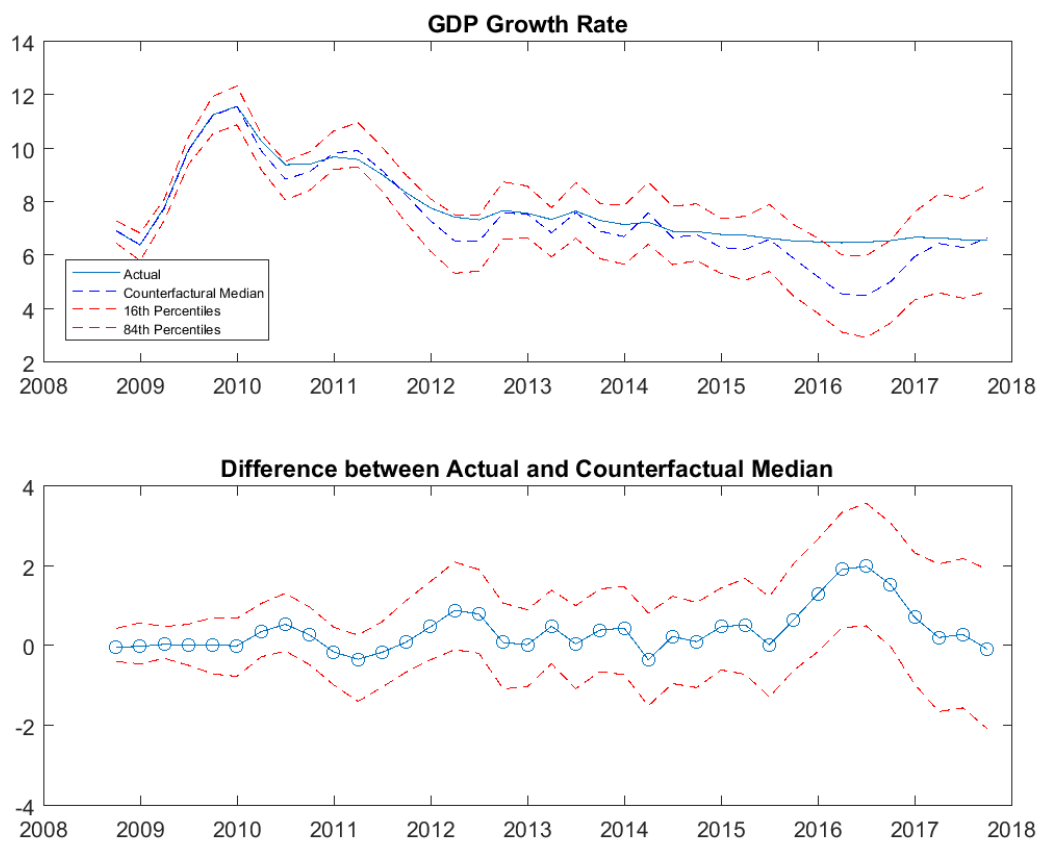
Note: Forecast error variance decomposition is computed by the posterior mean and 16th/84th percentile of the parameters of each quarter. Row 1 to 5 correspond to variance decompositions of 1, 2, 4, 8, and 16 step ahead horizons. Column 1 to 4 correspond to contributions of the GDP growth rate shock, inflation rate shock, interest rate shock, and money growth rate shock in every horizon.

Figure A-9: Forecast Error Variance Decomposition of Inflation Rate



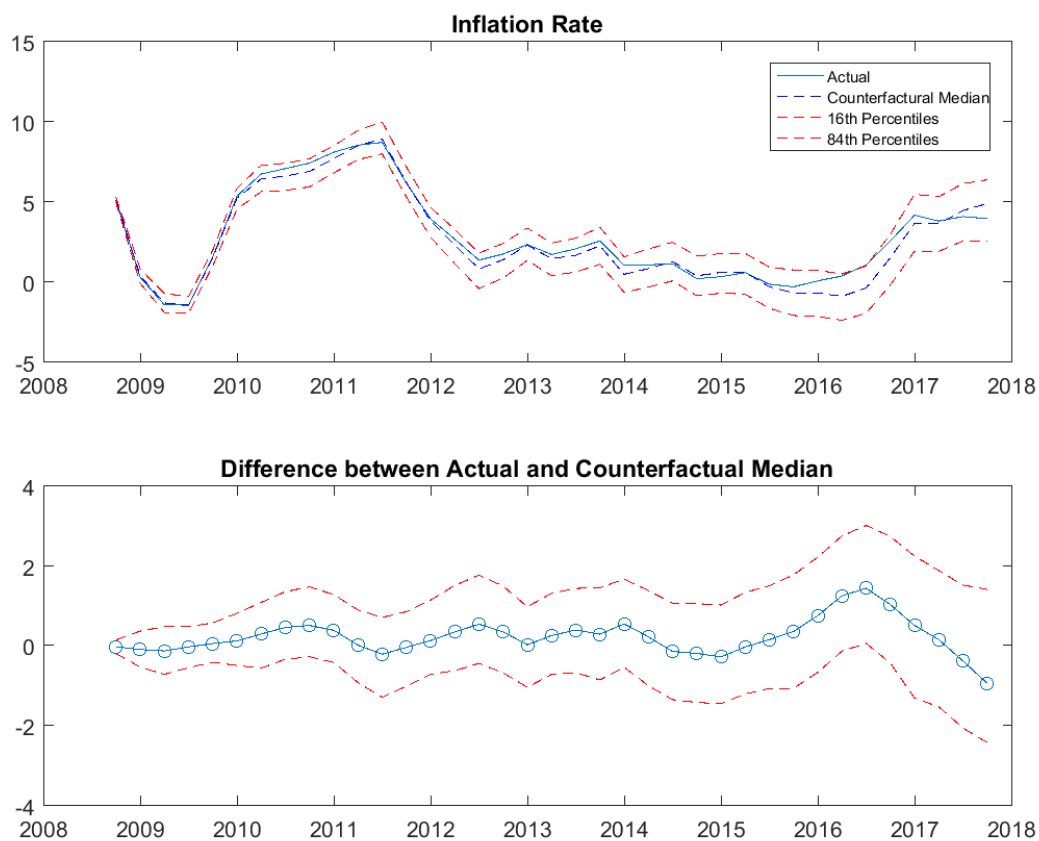
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Figure A-10: Counterfactual GDP Growth Rate over 2008:Q4 to 2017:Q4



Note: Counterfactual GDP growth rate is generated from the TVP-VAR-SV by using the parameters of average of posterior means of eight quarters ahead of 2007:Q3 and the realized shocks backed out from the actual errors over the period 2008:Q4 to 2017:Q4

Figure A-11: Counterfactual Inflation Rate over 2008:Q4 to 2017:Q4

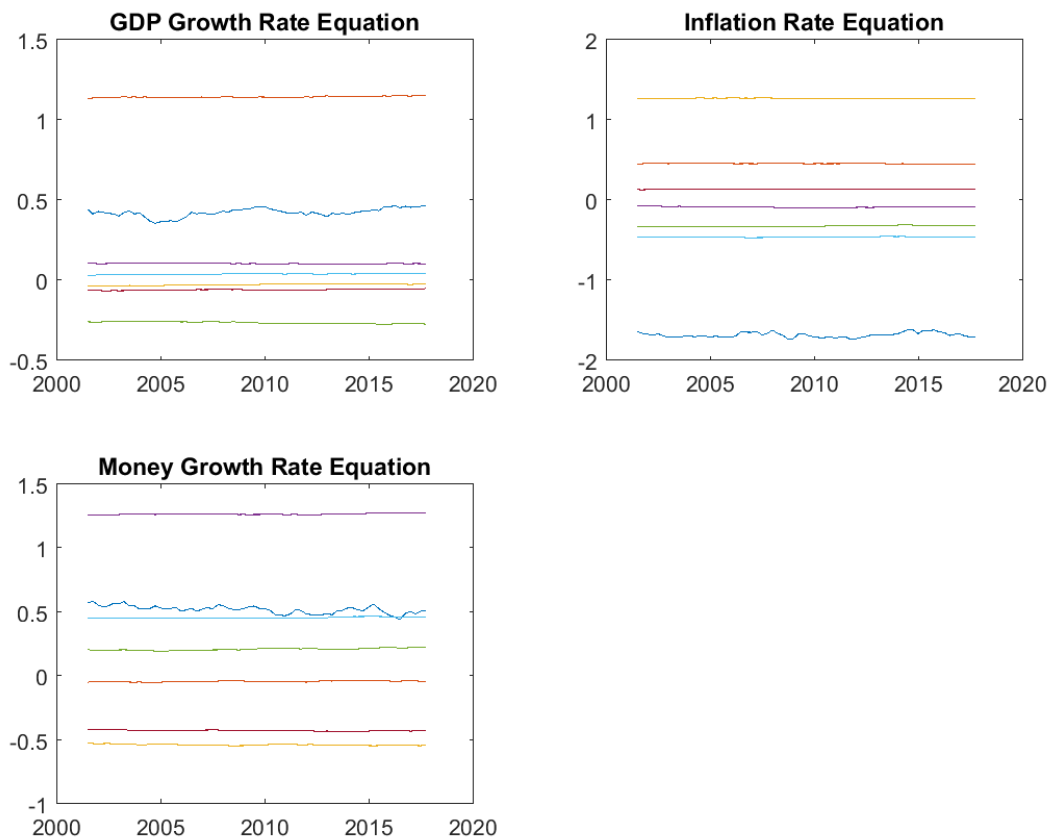


Note: Counterfactual inflation rate is generated from the TVP-VAR-SV by using the parameters of average of posterior means of eight quarters ahead of 2007:Q3 and the realized shocks backed out from the actual errors over the period 2008:Q4 to 2017:Q4

B Robustness: Excluding Interest Rate in the VAR

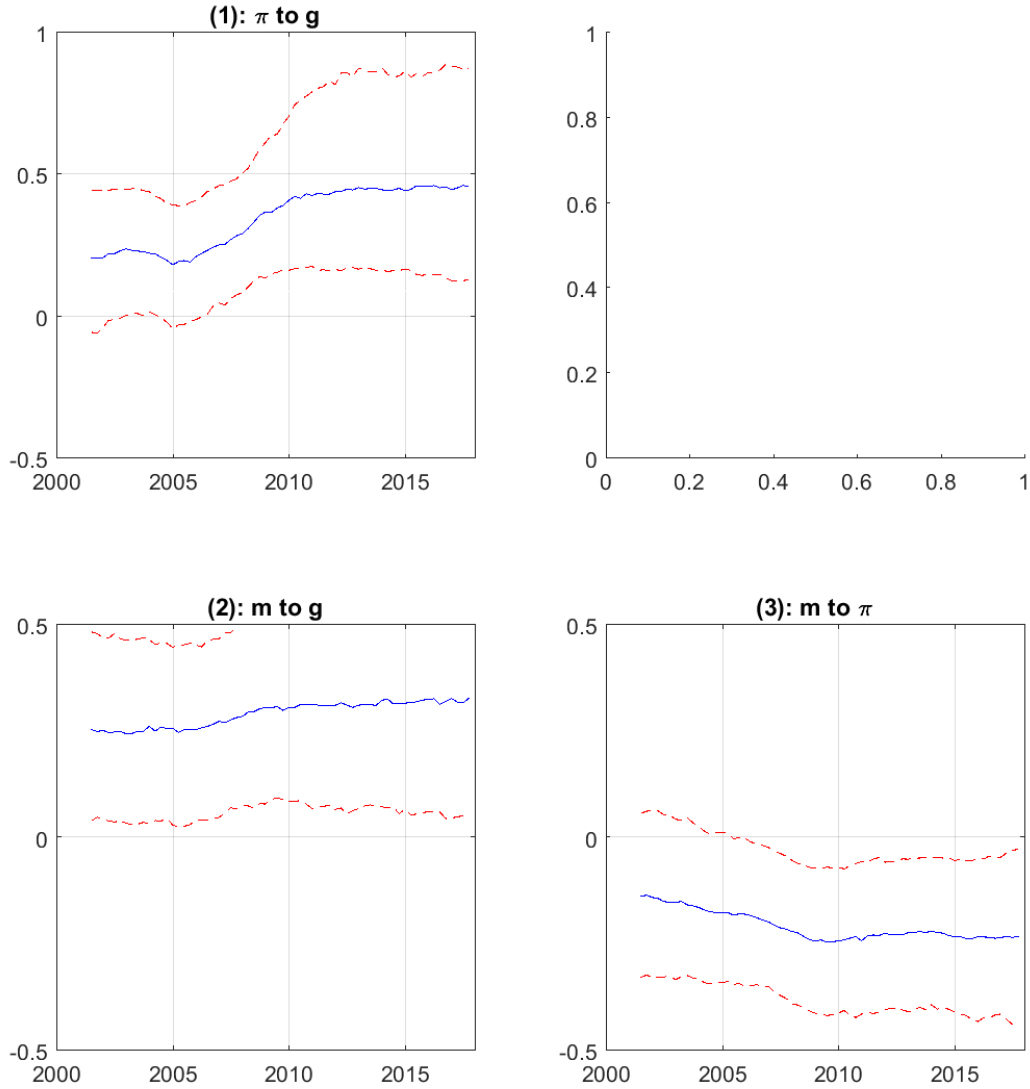
In this section, we exclude the interest rate in the VAR.

Figure B-1: Posterior Median Estimates of β_t



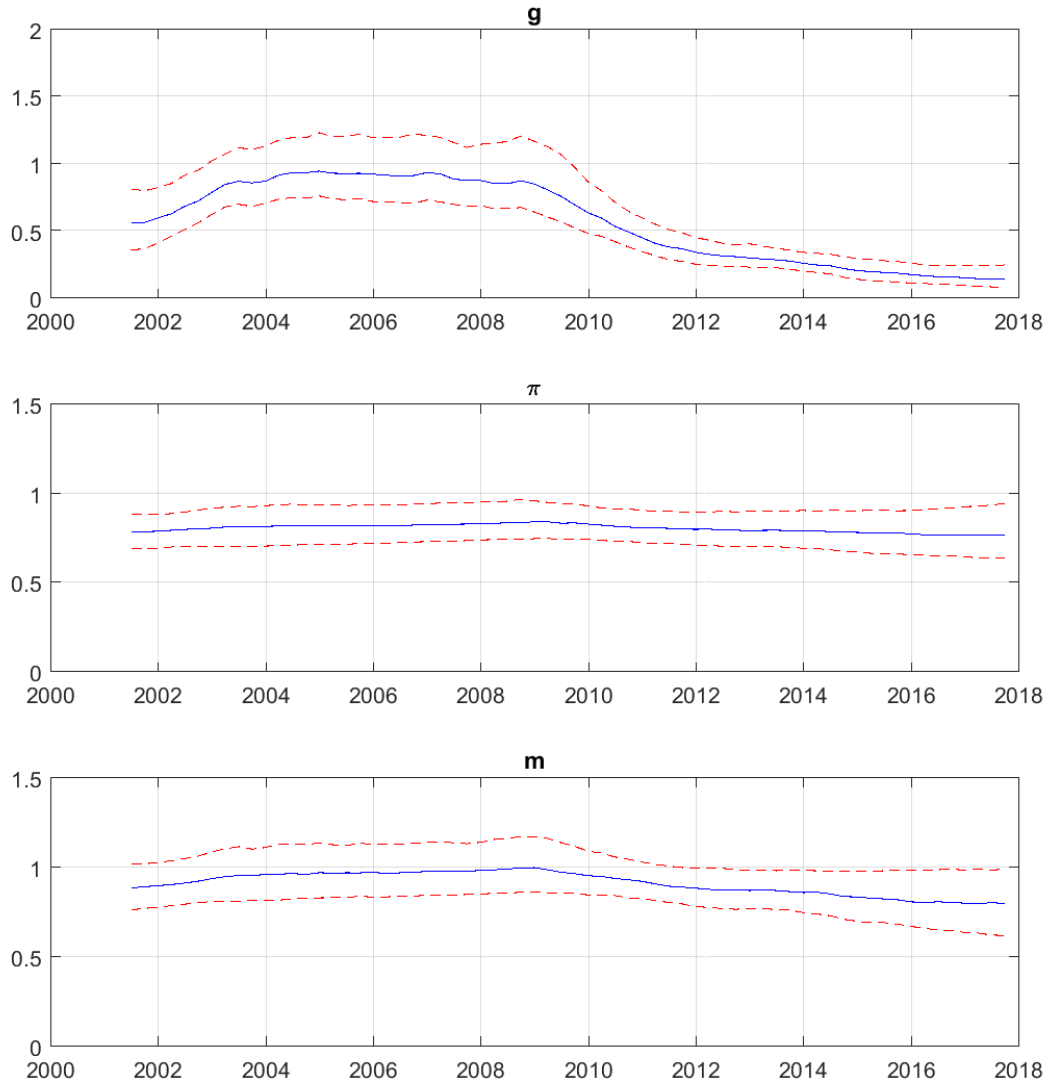
Note: We sample 10000 draws from the posterior distribution and discard the first 2000 draws as the burnin process. The graph shows the posterior medians of the selected draws of every parameter. Each panel corresponds to the parameters of one equation in the VAR.

Figure B-2: Posterior Median and 16th/86th Percentile Estimates of $-\alpha_t$



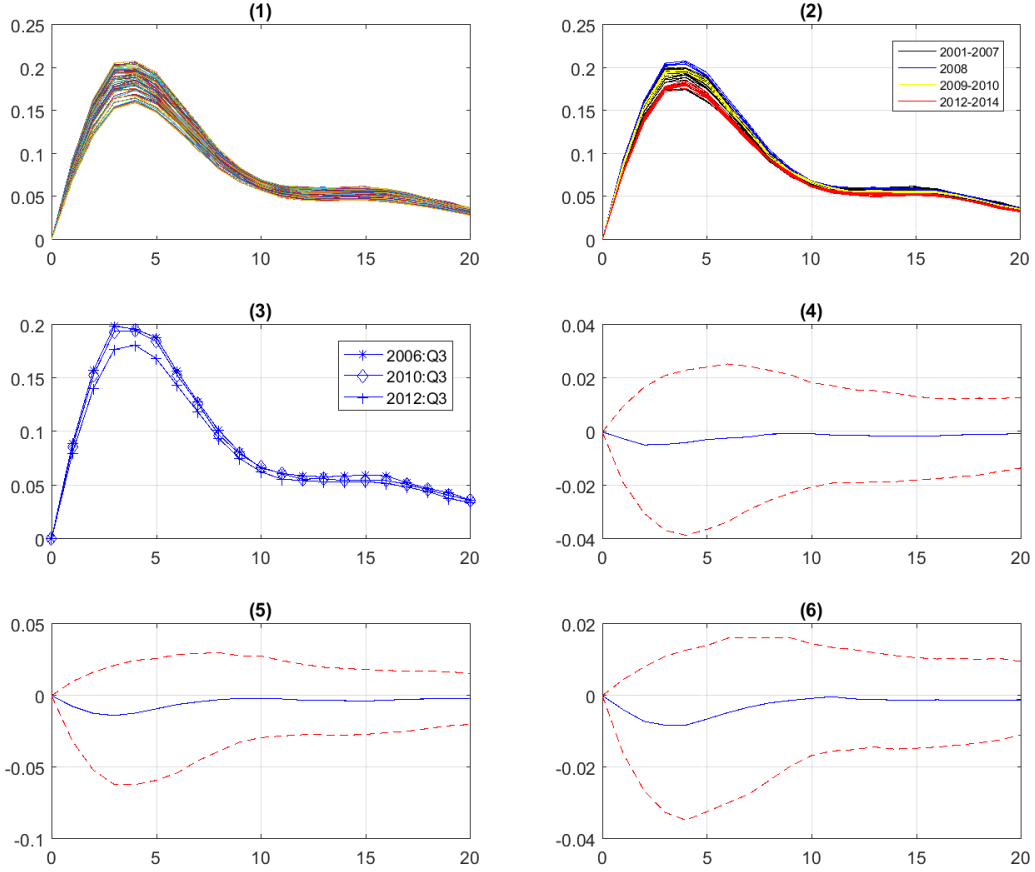
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Figure B-3: Posterior Median and 16th/86th Percentiles of σ_t



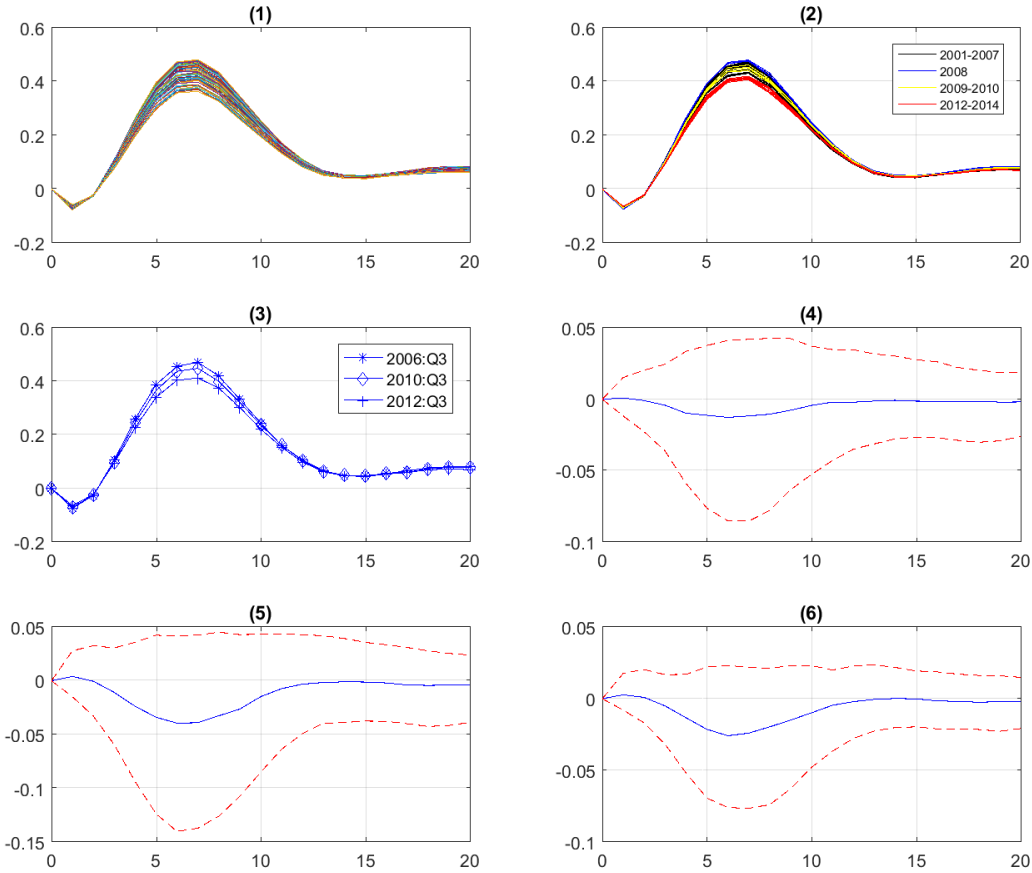
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Figure B-4: Impulse Response Functions of GDP Growth Rate to 1% Money Growth Rate Shock



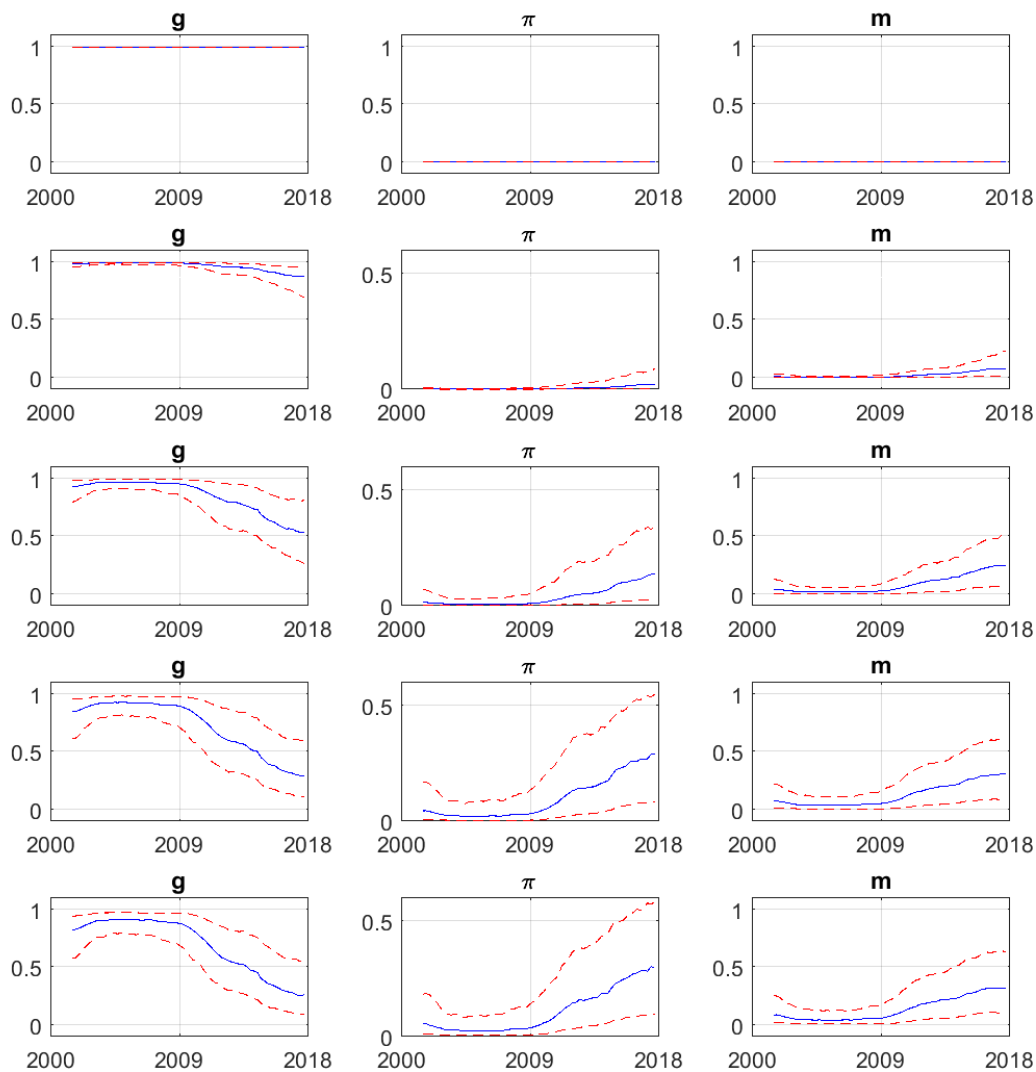
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Figure B-5: Impulse Response Functions of Inflation Rate to 1% Money Growth Rate Shock



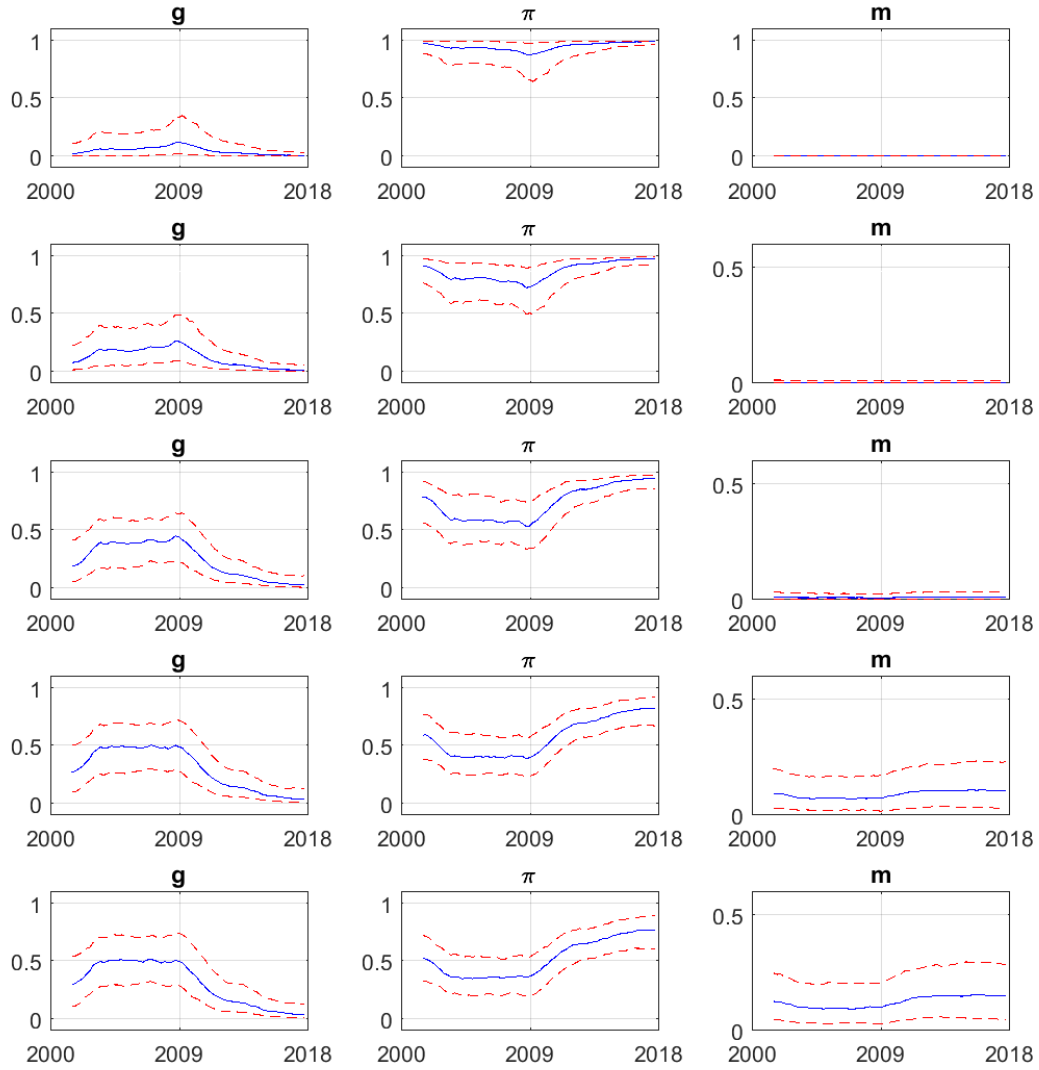
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Figure B-6: Forecast Error Variance Decomposition of GDP Growth Rate



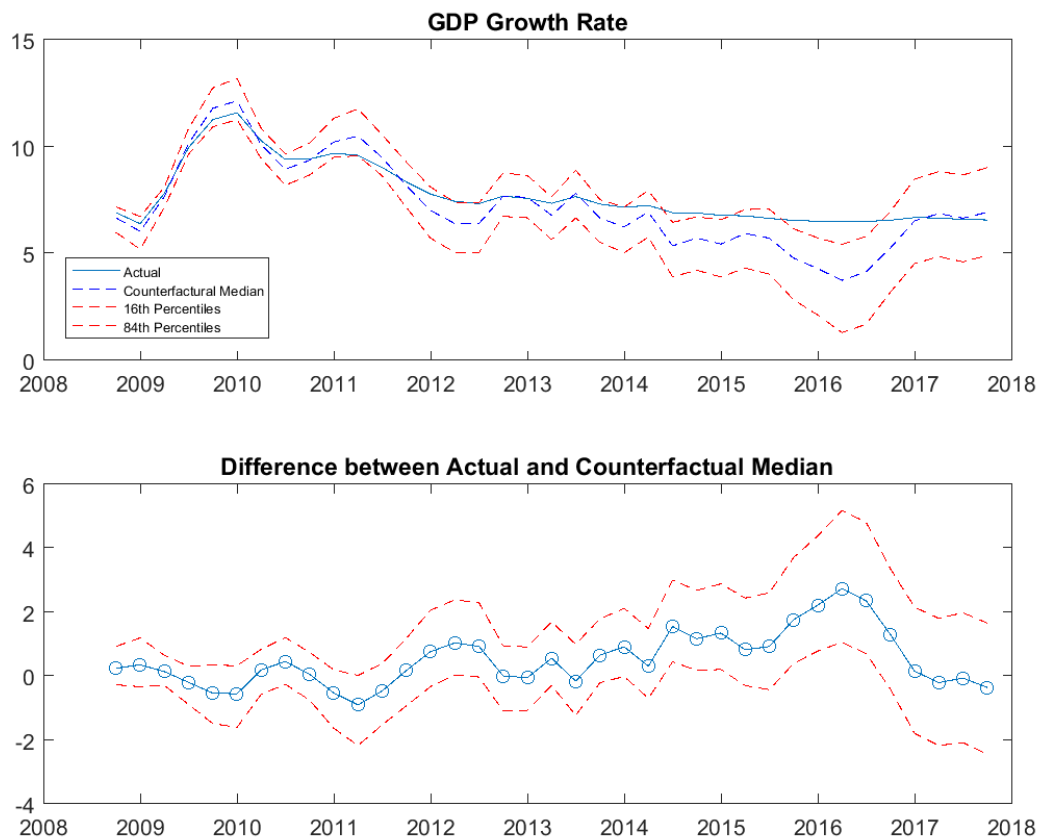
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Figure B-7: Forecast Error Variance Decomposition of Inflation Rate



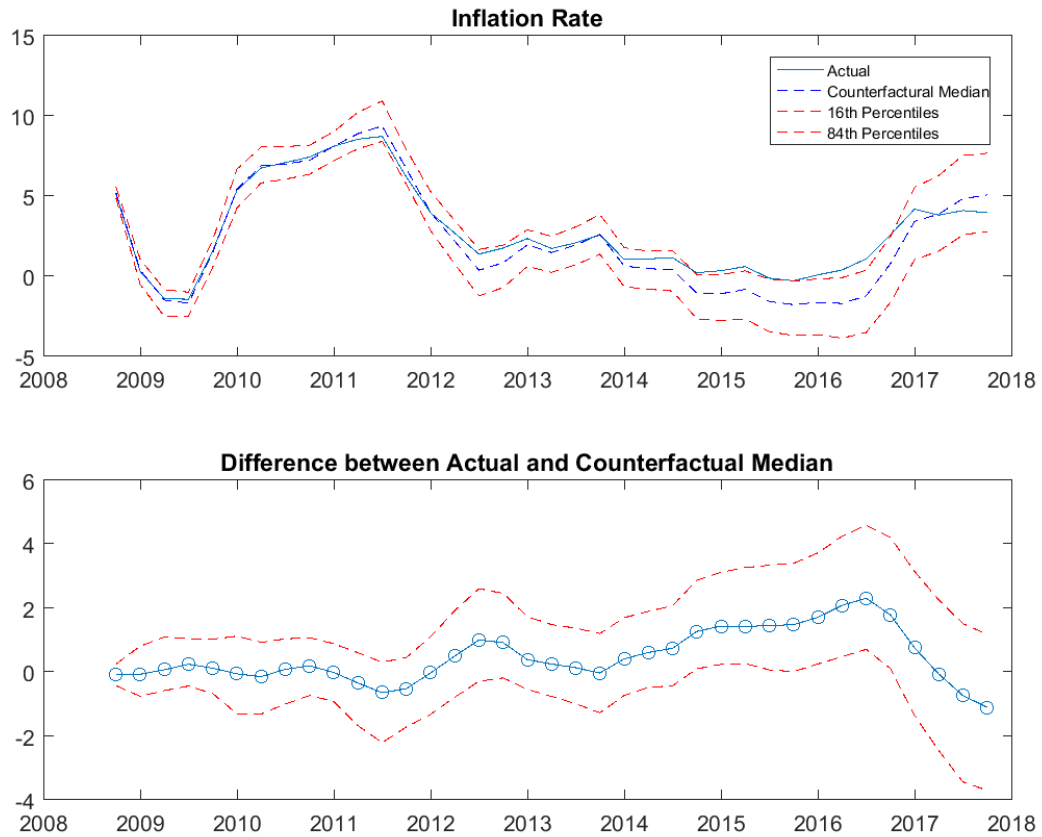
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Figure B-8: Counterfactual GDP Growth Rate over 2008:Q4 to 2017:Q4



Note: Counterfactual GDP growth rate is generated from the TVP-VAR-SV by using the parameters of average of posterior means of eight quarters ahead of 2007:Q3 and the realized shocks backed out from the actual errors over the period 2008:Q4 to 2017:Q4

Figure B-9: Counterfactual Inflation Rate over 2008:Q4 to 2017:Q4

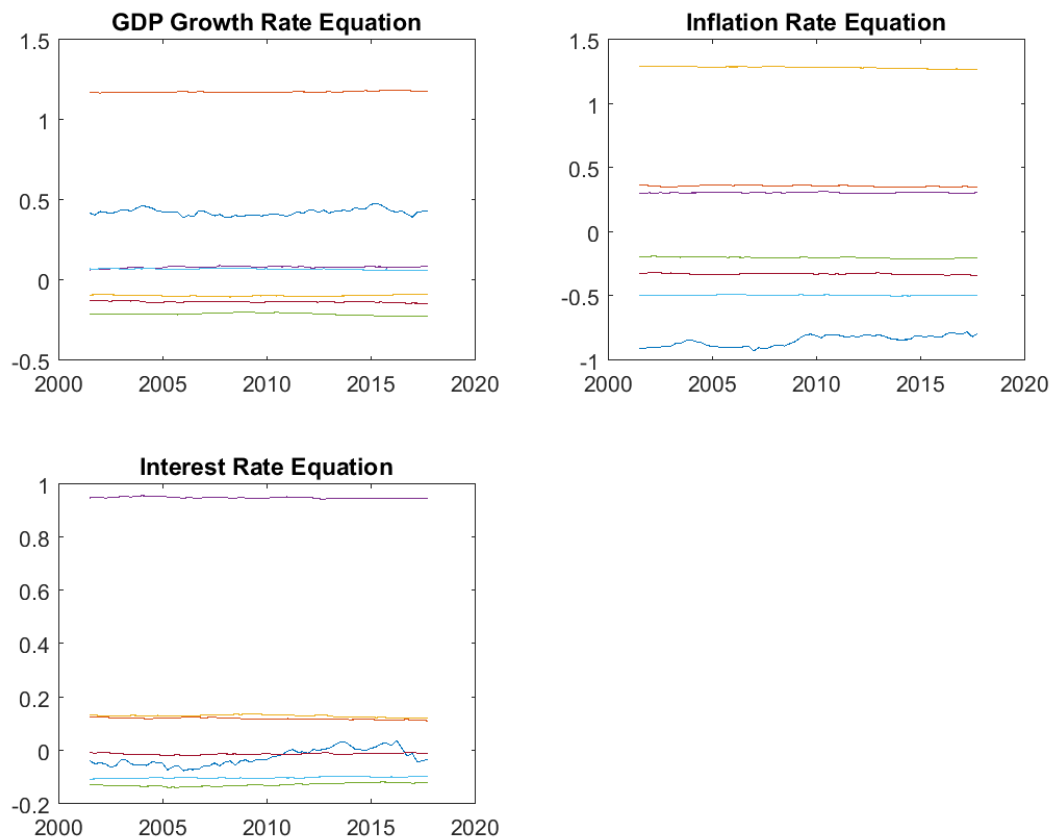


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C Robustness: Excluding Money Growth Rate in the VAR

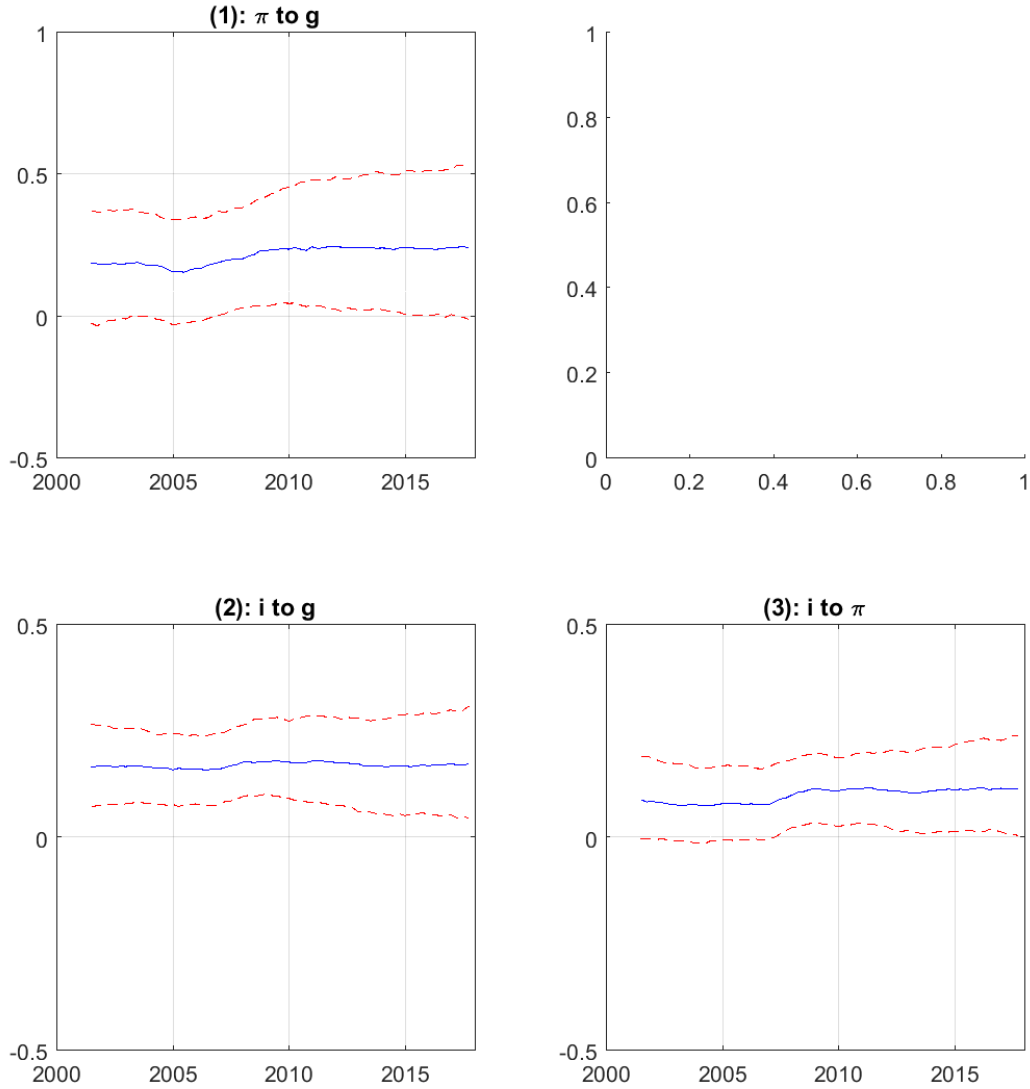
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Figure C-1: Posterior Median Estimates of β_t



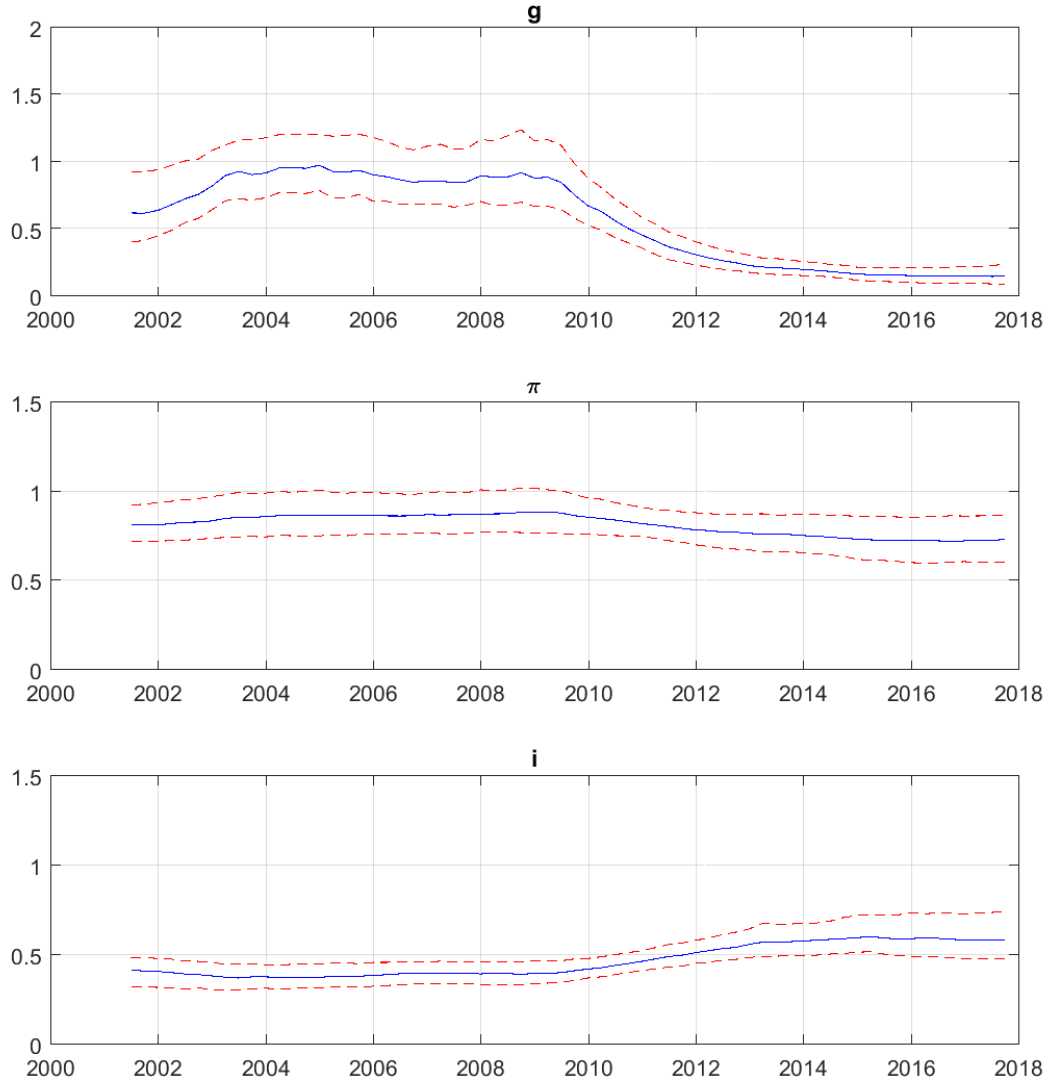
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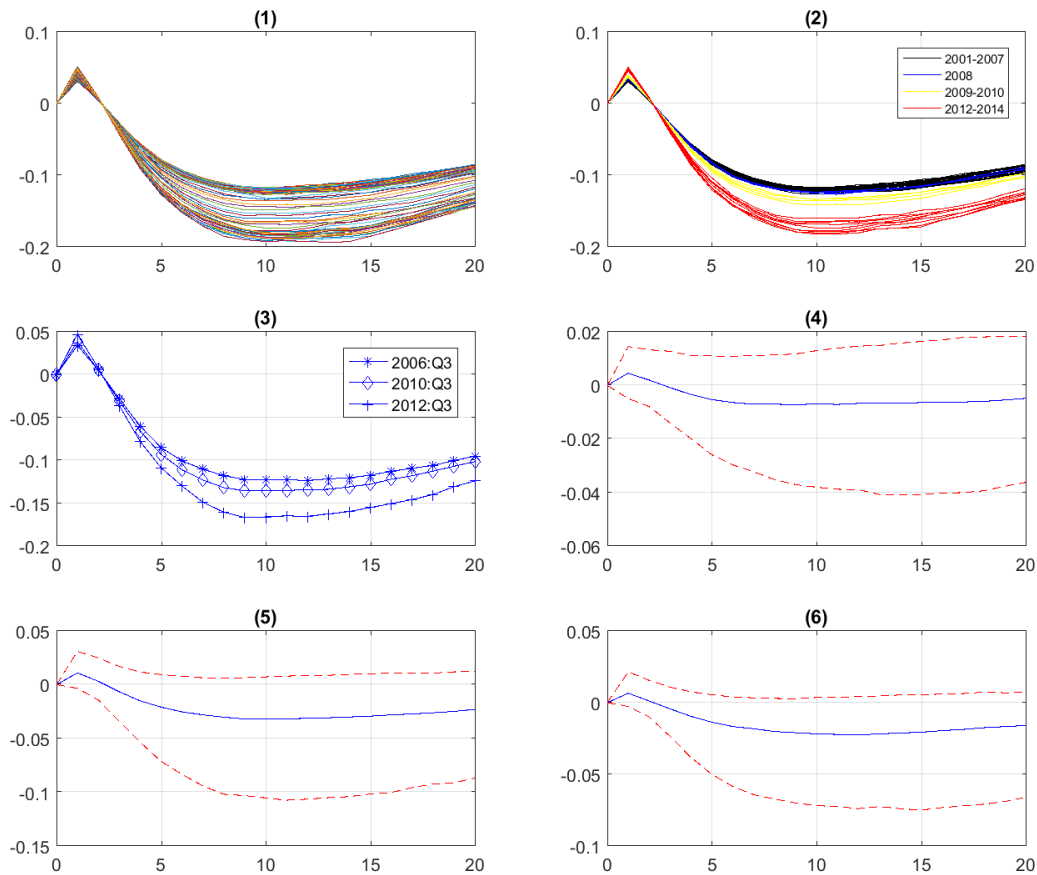
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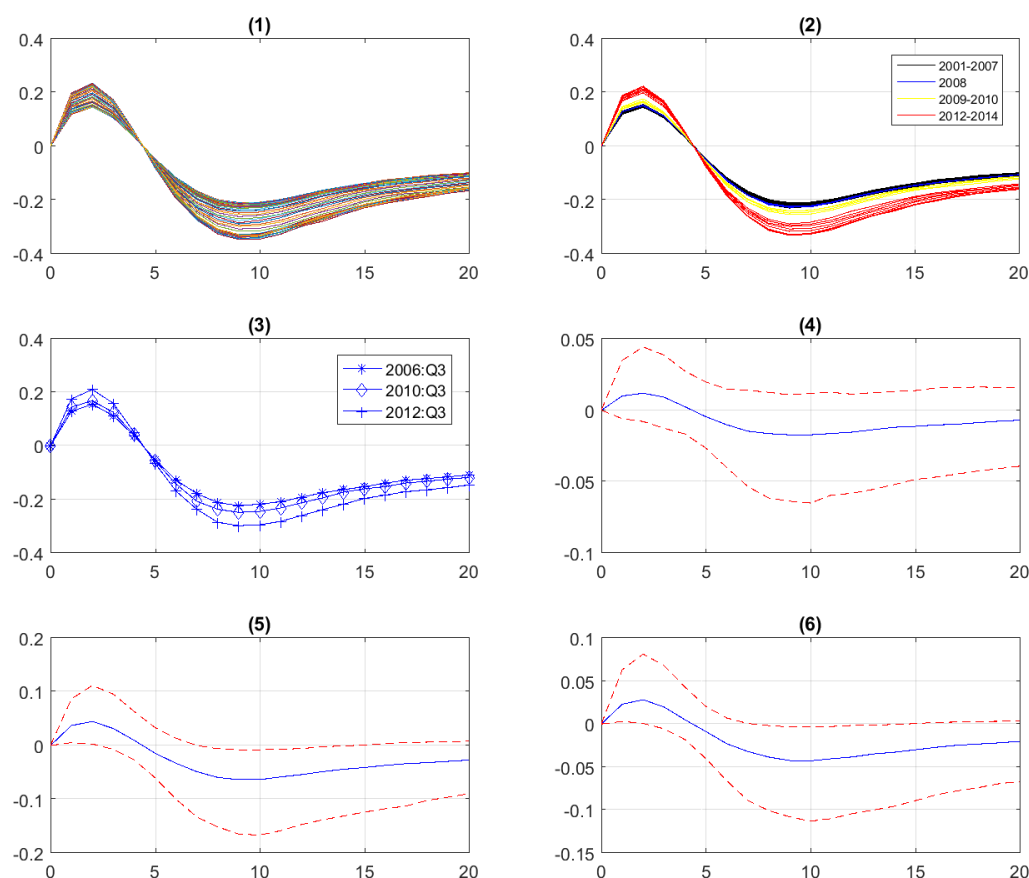
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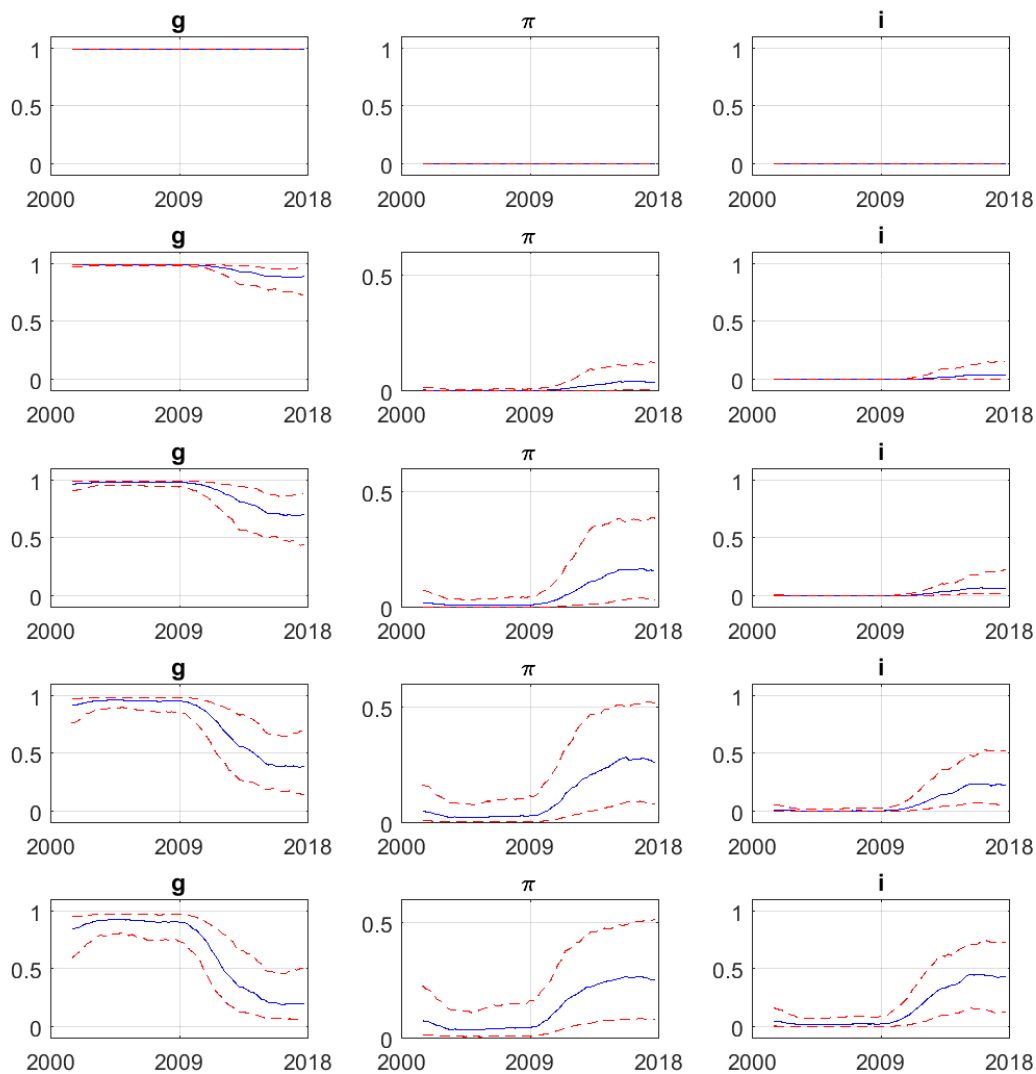
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Figure C-5: Impulse Response Functions of Inflation Rate to 1% Interest Rate Shock



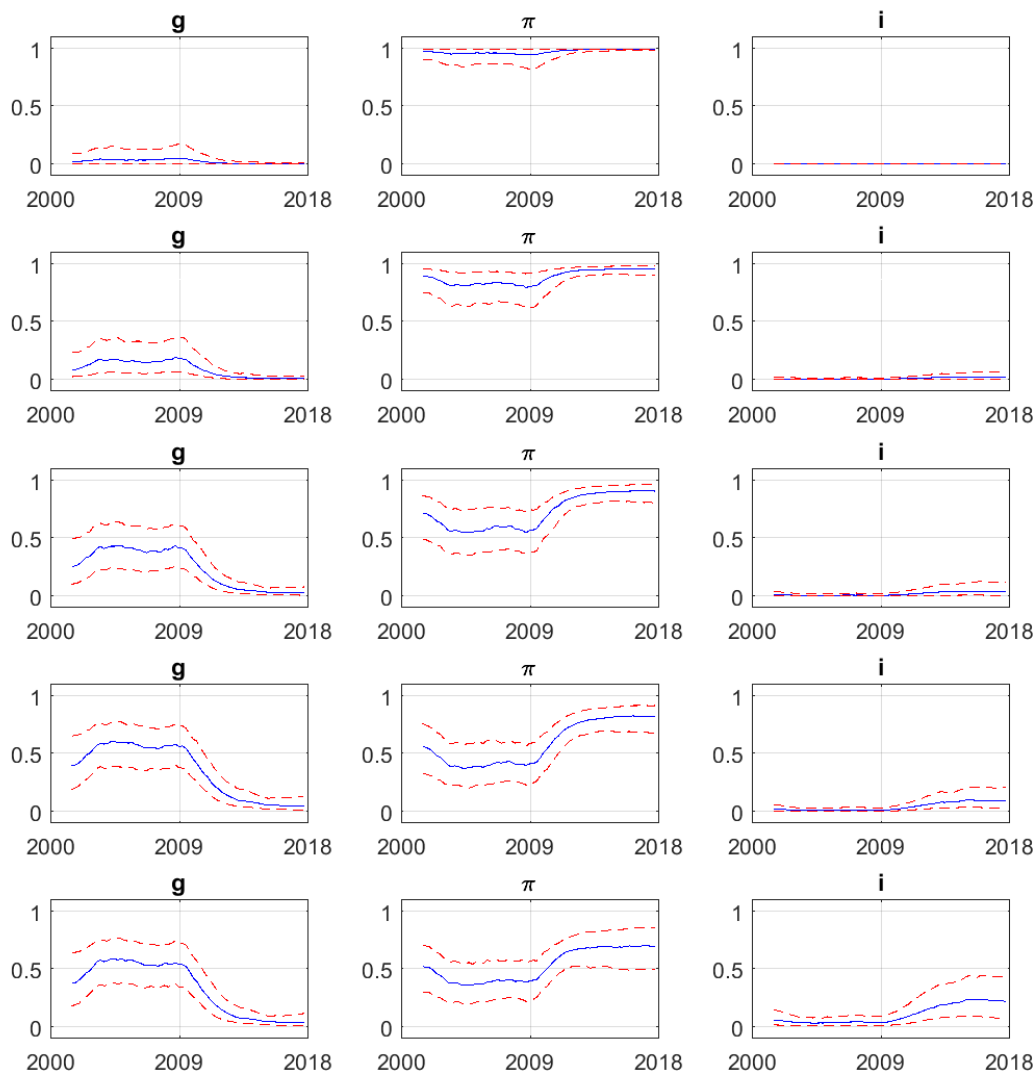
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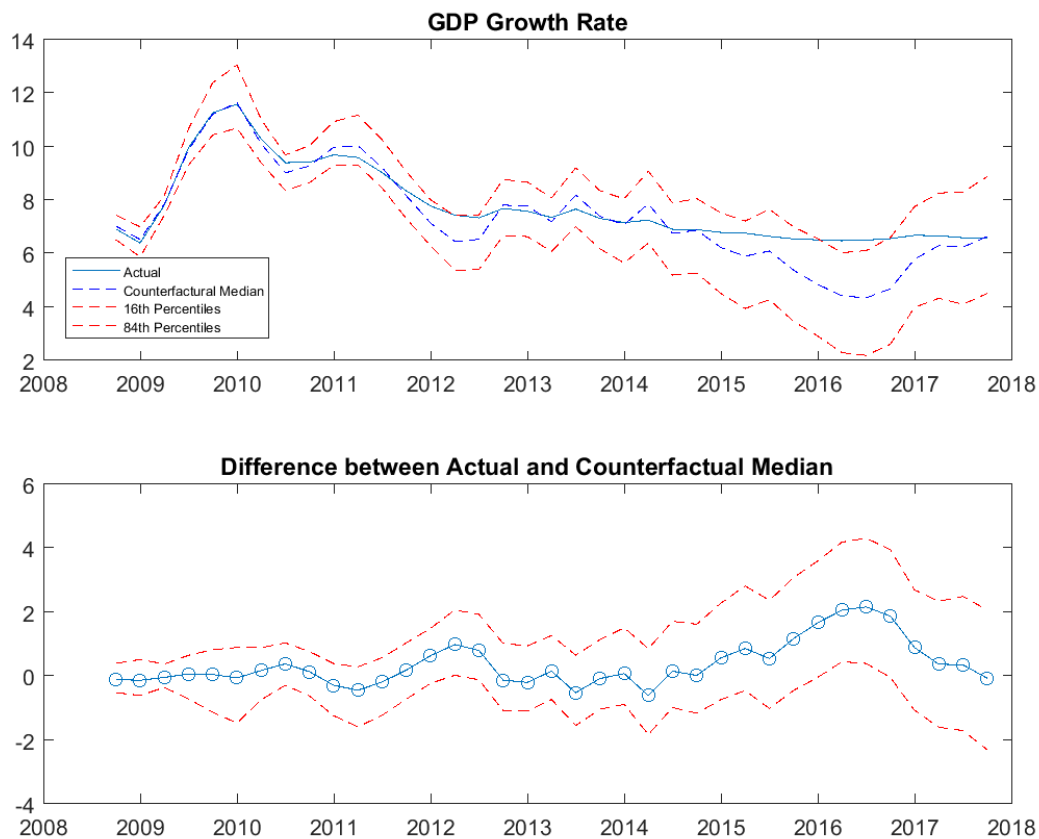
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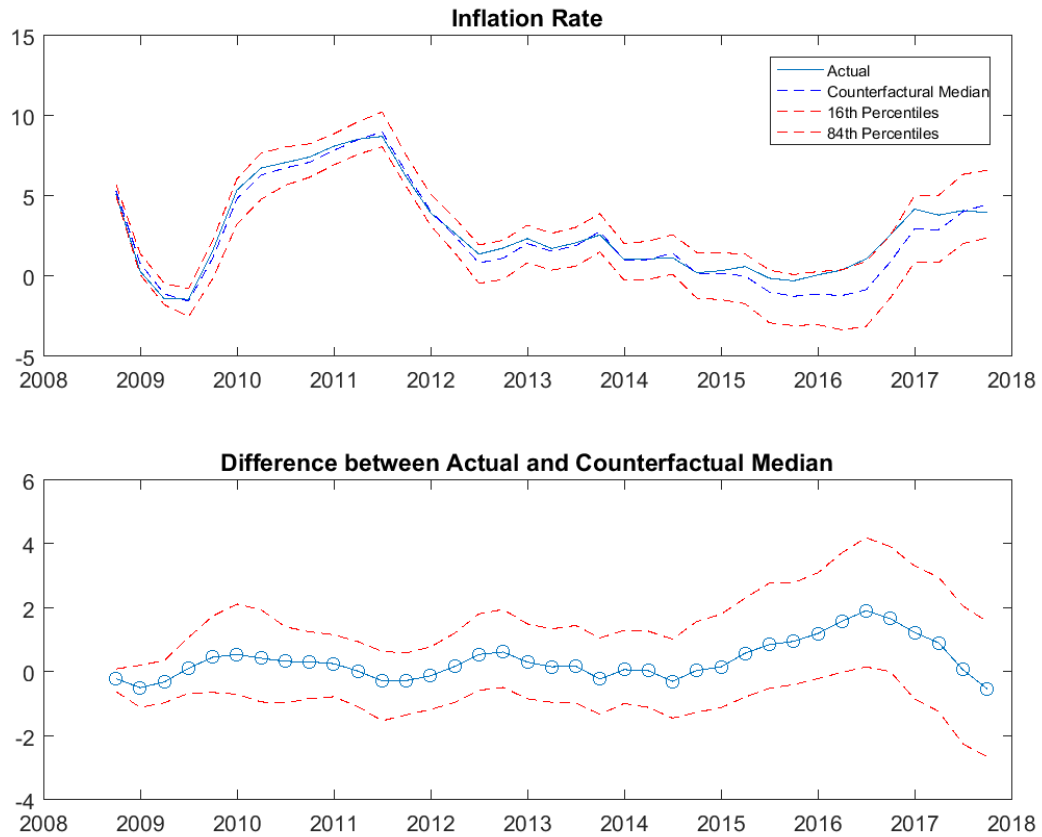
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Figure C-9: Counterfactual Inflation Rate over 2008:Q4 to 2017:Q4



Note: Counterfactual inflation rate is generated from the TVP-VAR-SV by using the parameters of average of posterior means of eight quarters ahead of 2007:Q3 and the realized shocks backed out from the actual errors over the period 2008:Q4 to 2017:Q4