BALANCED GROWTH APPROACH TO TRACKING RECESSIONS

ONLINE APPENDIX

MARTA BOCZOŃ AND JEAN-FRANÇOIS RICHARD
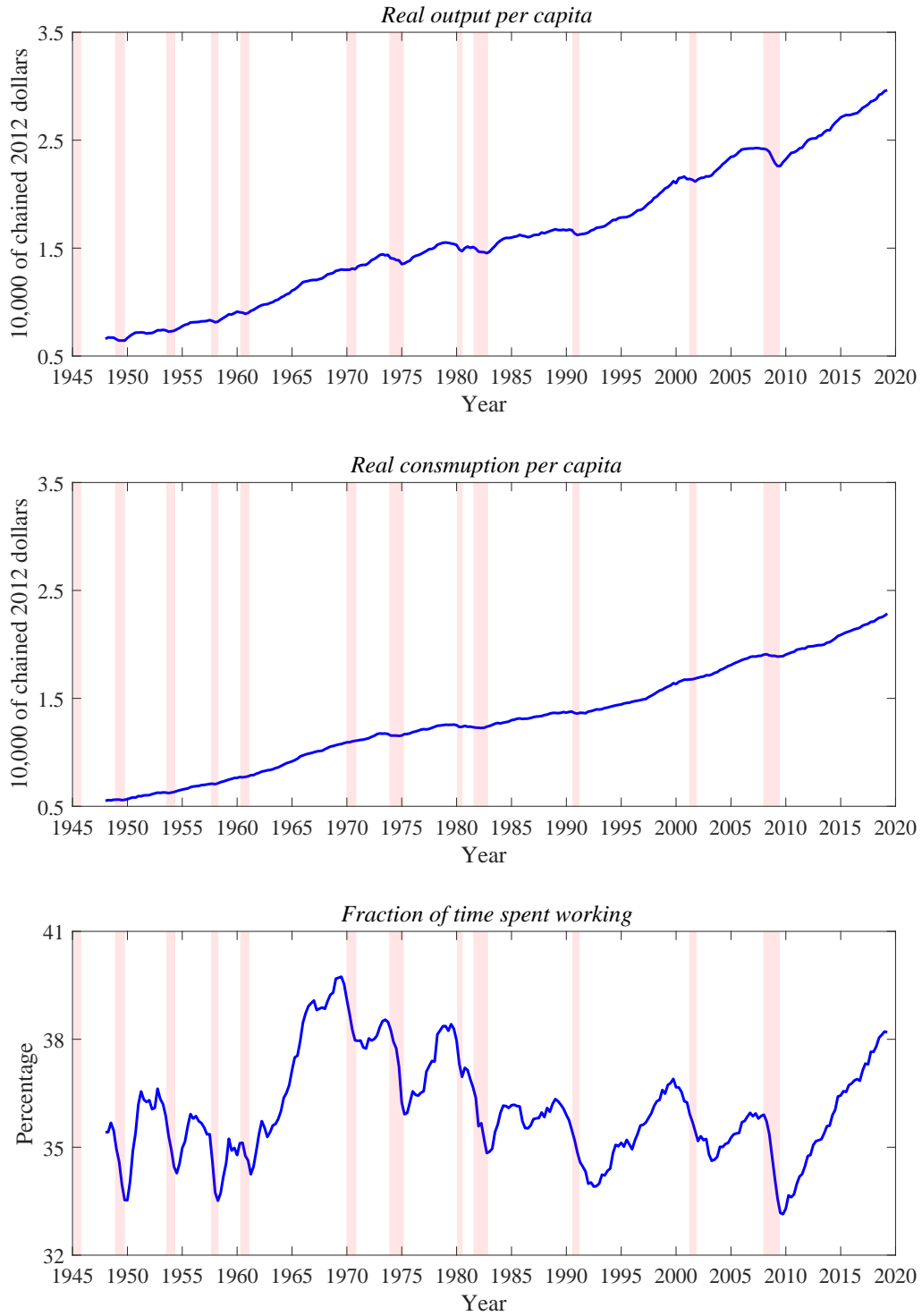
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FIGURE 1. Data used in the estimation of the RBC pilot model

Note: Shaded regions correspond to NBER recession dates.

FIGURE 2. VAR-ECM model: VAR recursive parameter estimates

Note: The solid lines represent the recursive parameter estimates and dashed lines the corresponding 95% confidence intervals. Vertical shaded regions correspond to NBER recession dates.

FIGURE 3. VAR-ECM model: ECM recursive parameter estimates

Note: The solid lines represent the recursive parameter estimates and dashed lines the corresponding 95% confidence intervals. Vertical shaded regions correspond to NBER recession dates.

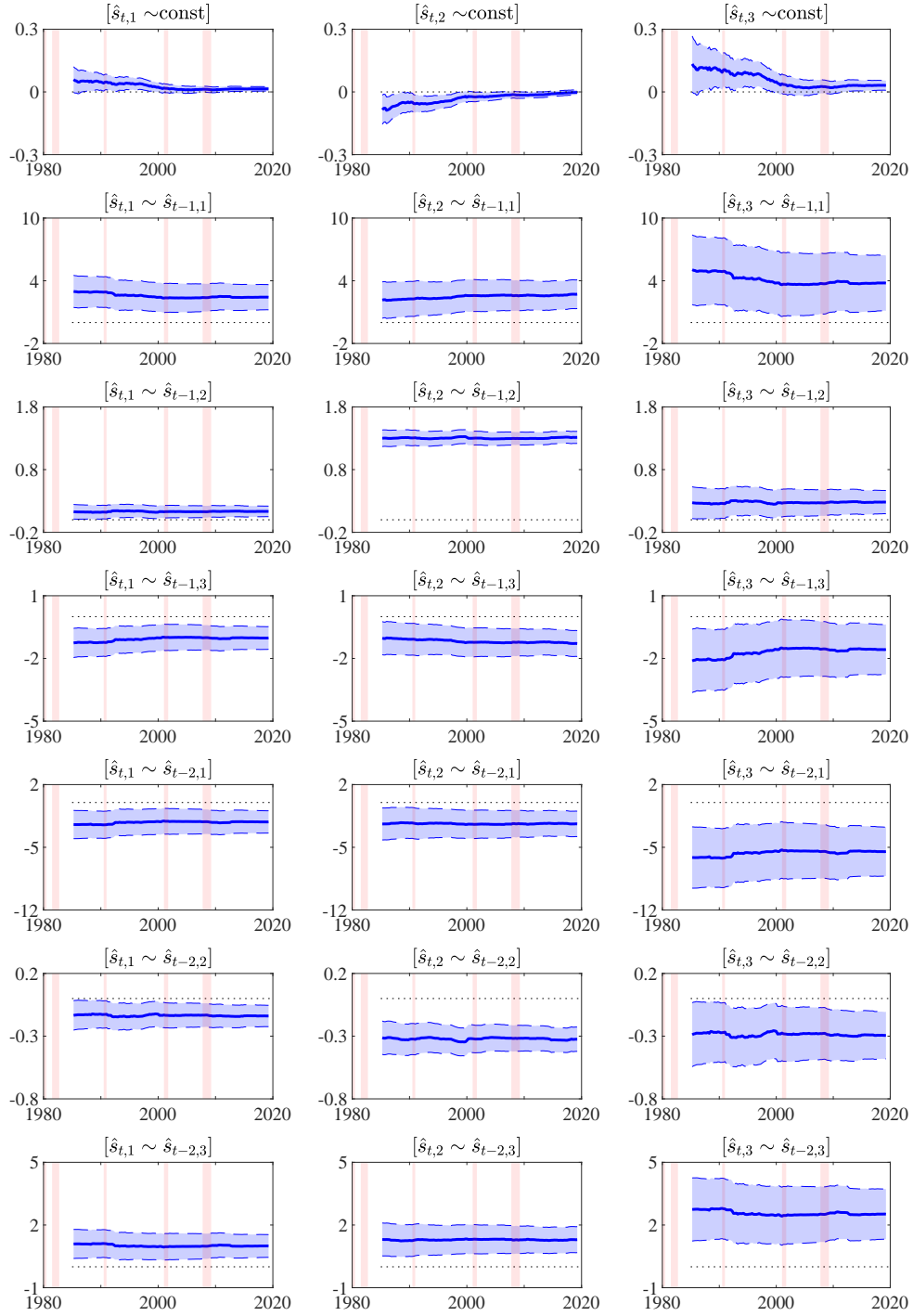FIGURE 4. Benchmark VAR model: VAR recursive parameter estimates

Note: The solid lines represent the recursive parameter estimates and dashed lines the corresponding 95% confidence intervals. Vertical shaded regions correspond to NBER recession dates.
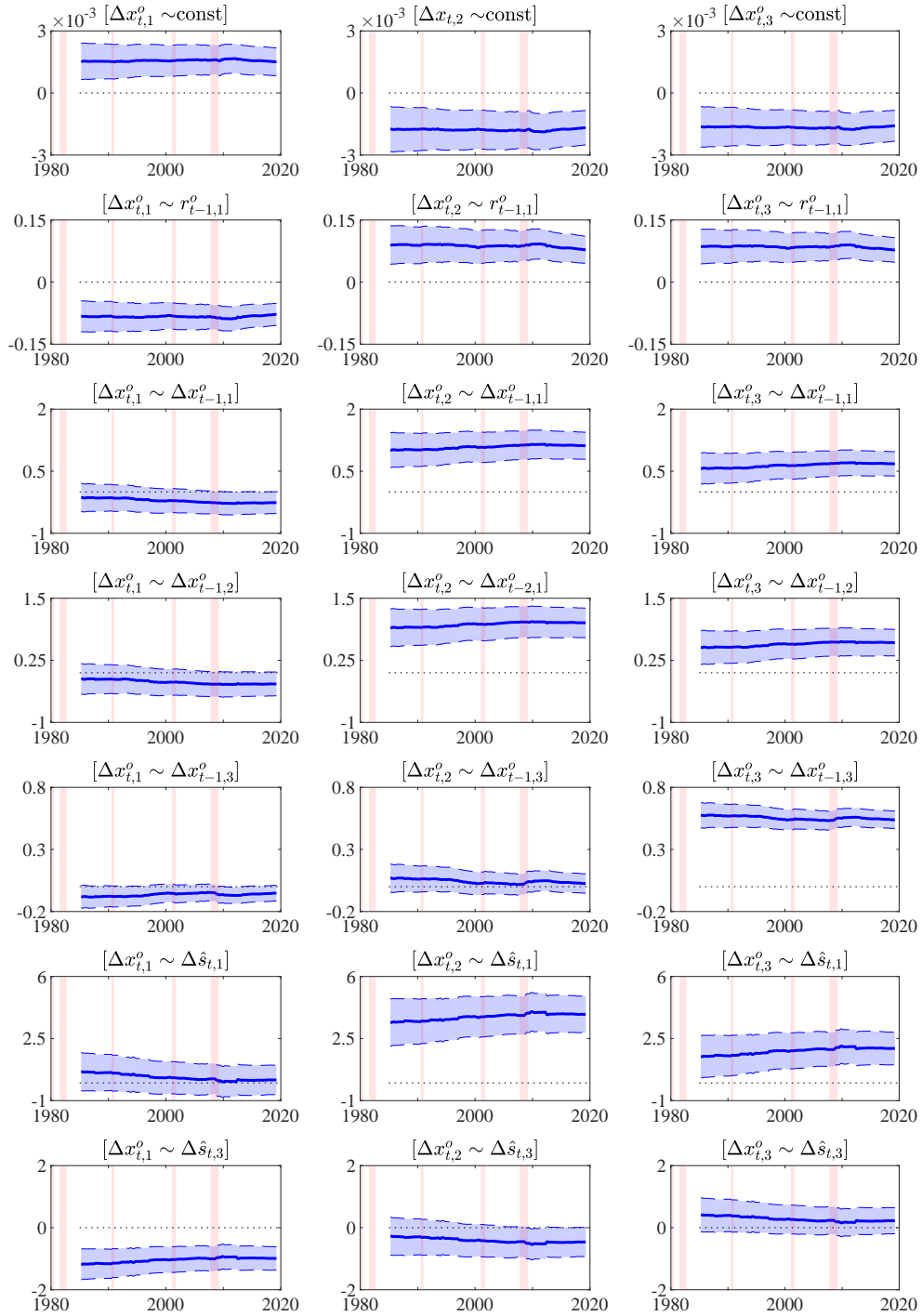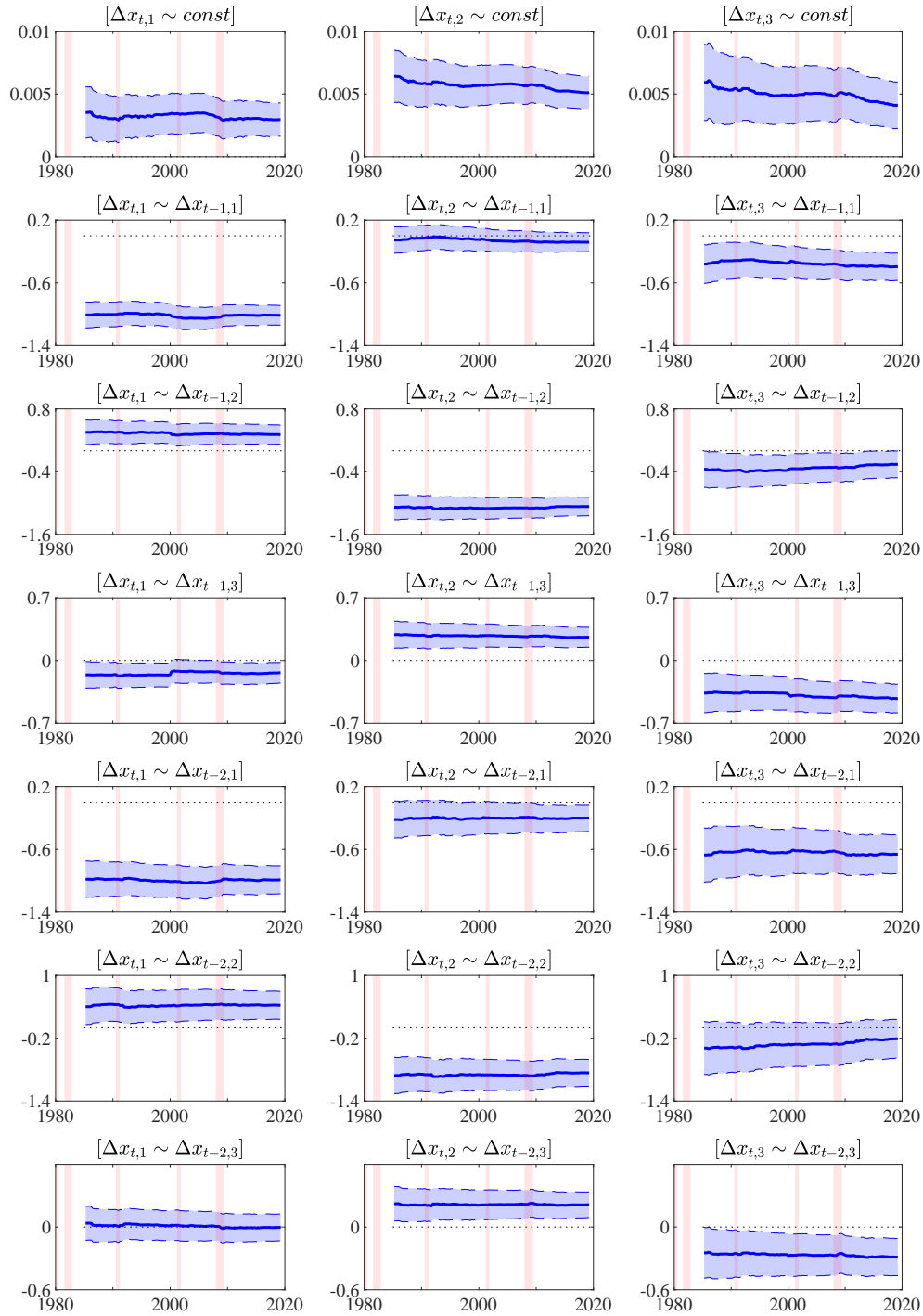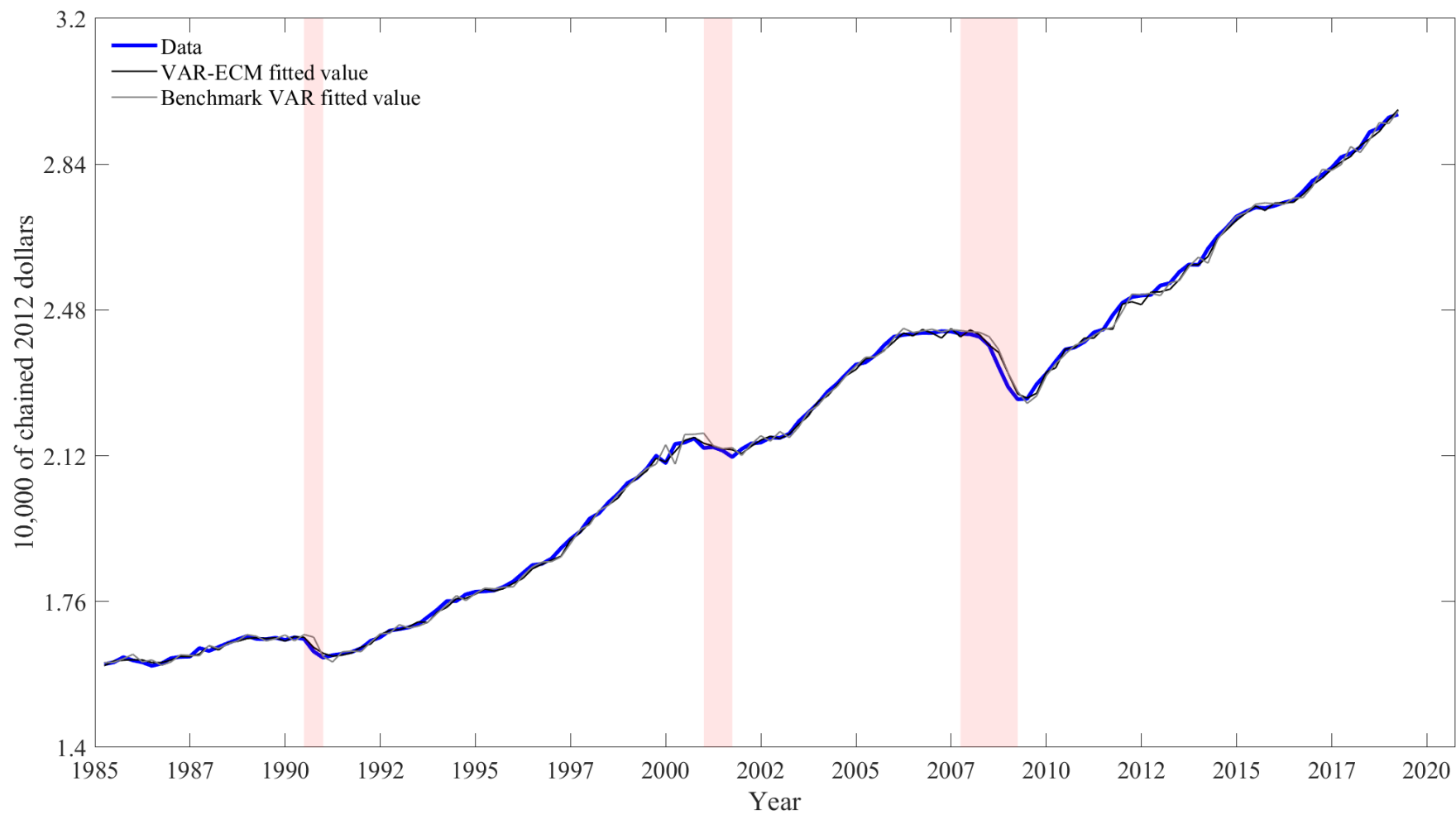
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FIGURE 5. Recursive fitted values for real output per capita

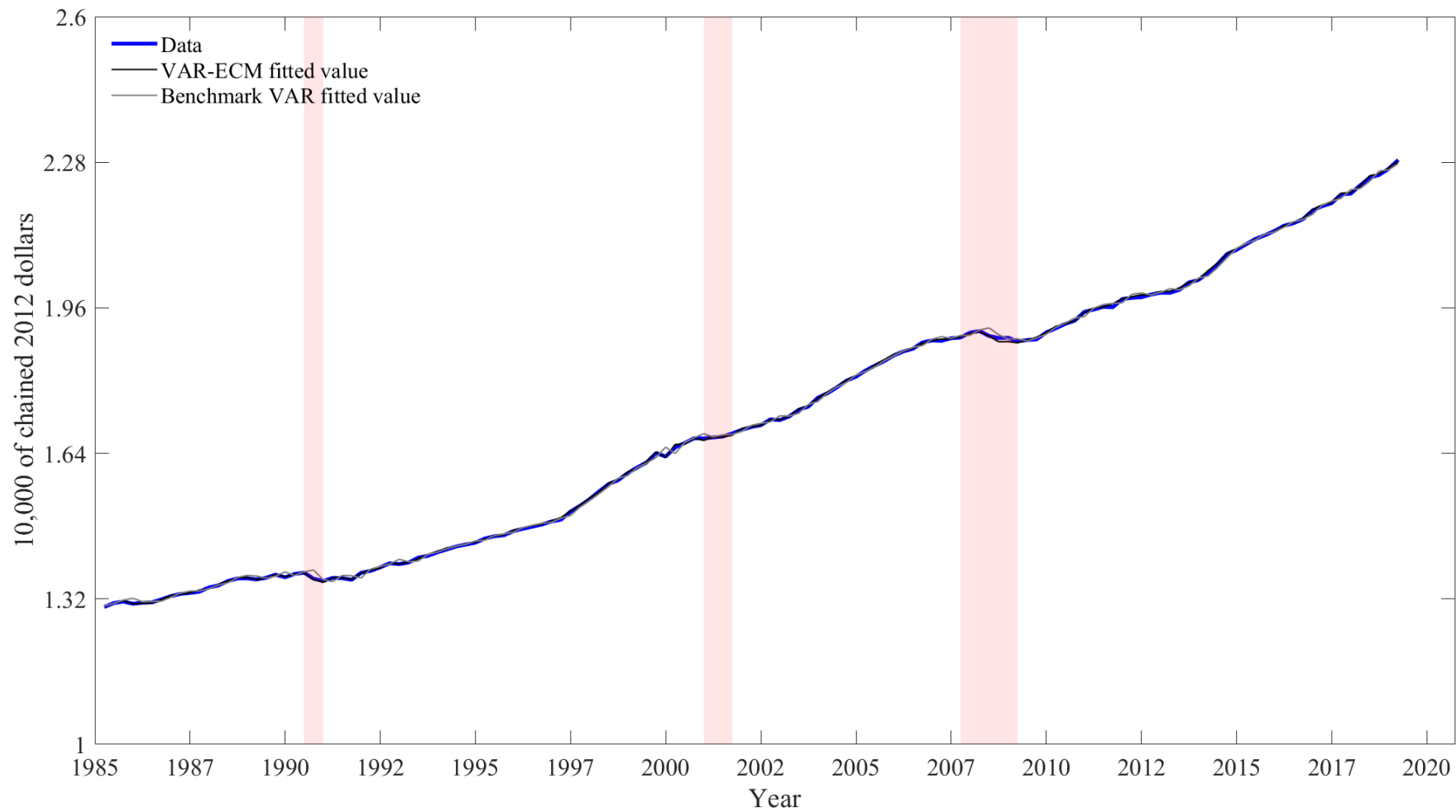*Note:* Shaded regions correspond to NBER recession dates.

FIGURE 6. Recursive fitted values for real consumption per capita

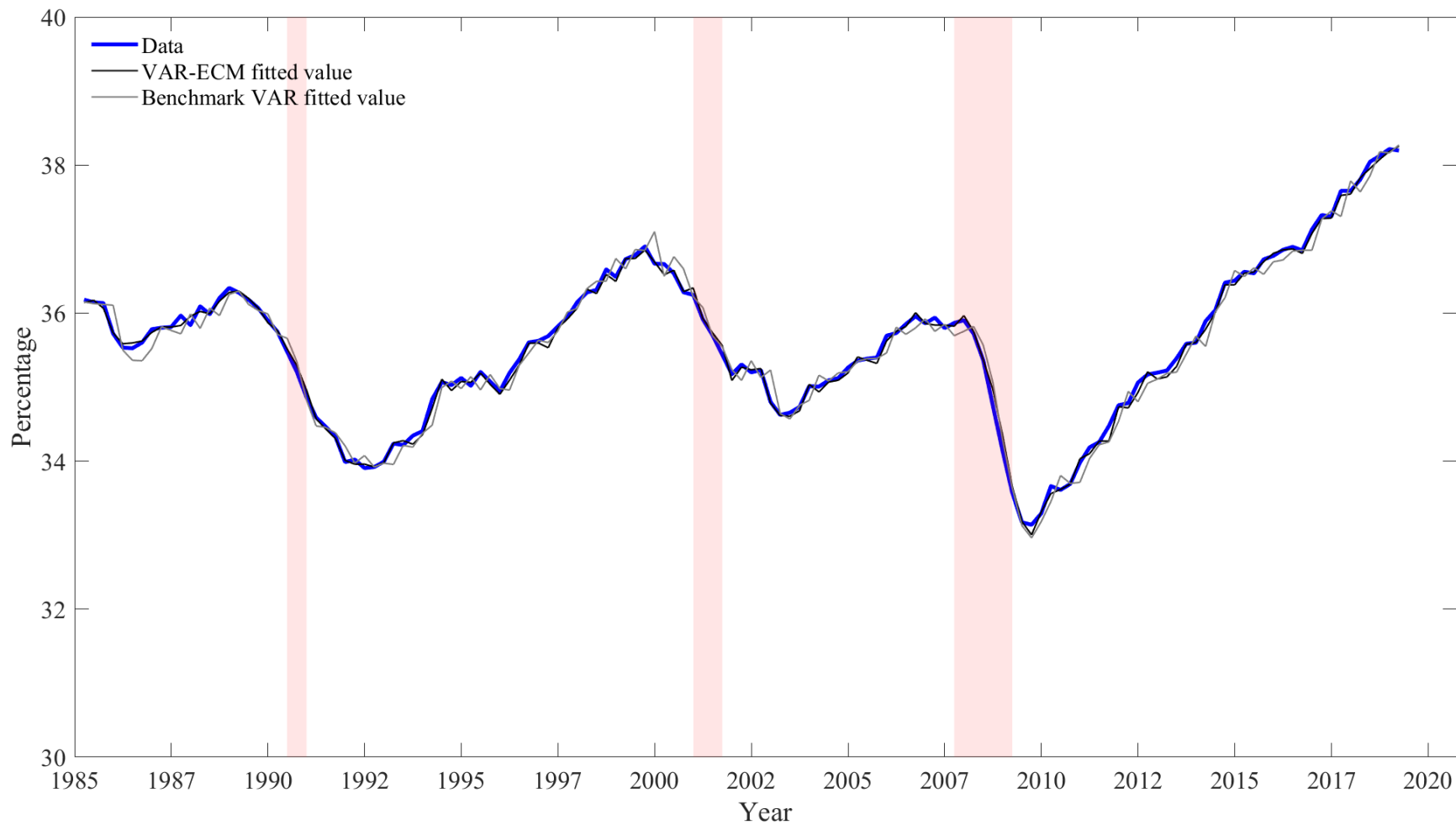*Note:* Shaded regions correspond to NBER recession dates.

FIGURE 7. Recursive fitted values for the fraction of time spent working

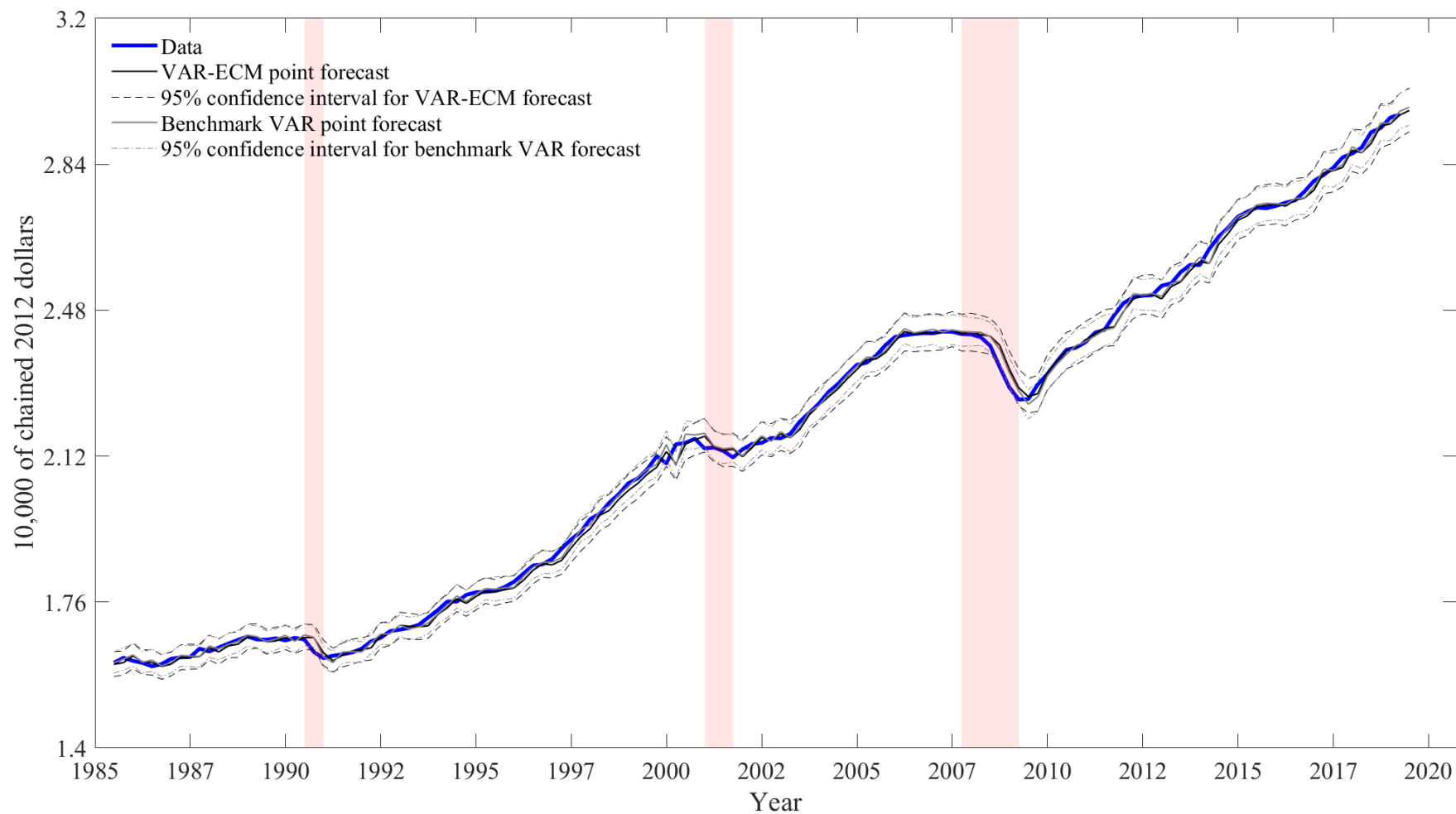*Note:* Shaded regions correspond to NBER recession dates.

FIGURE 8. Out-of-sample 1-step ahead recursive forecasts for real output per capita

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.

FIGURE 9. Out-of-sample 1-step ahead recursive forecasts for real consumption per capita

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.

FIGURE 10. Out-of-sample 1-step ahead recursive forecasts for the fraction of time spent working

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.
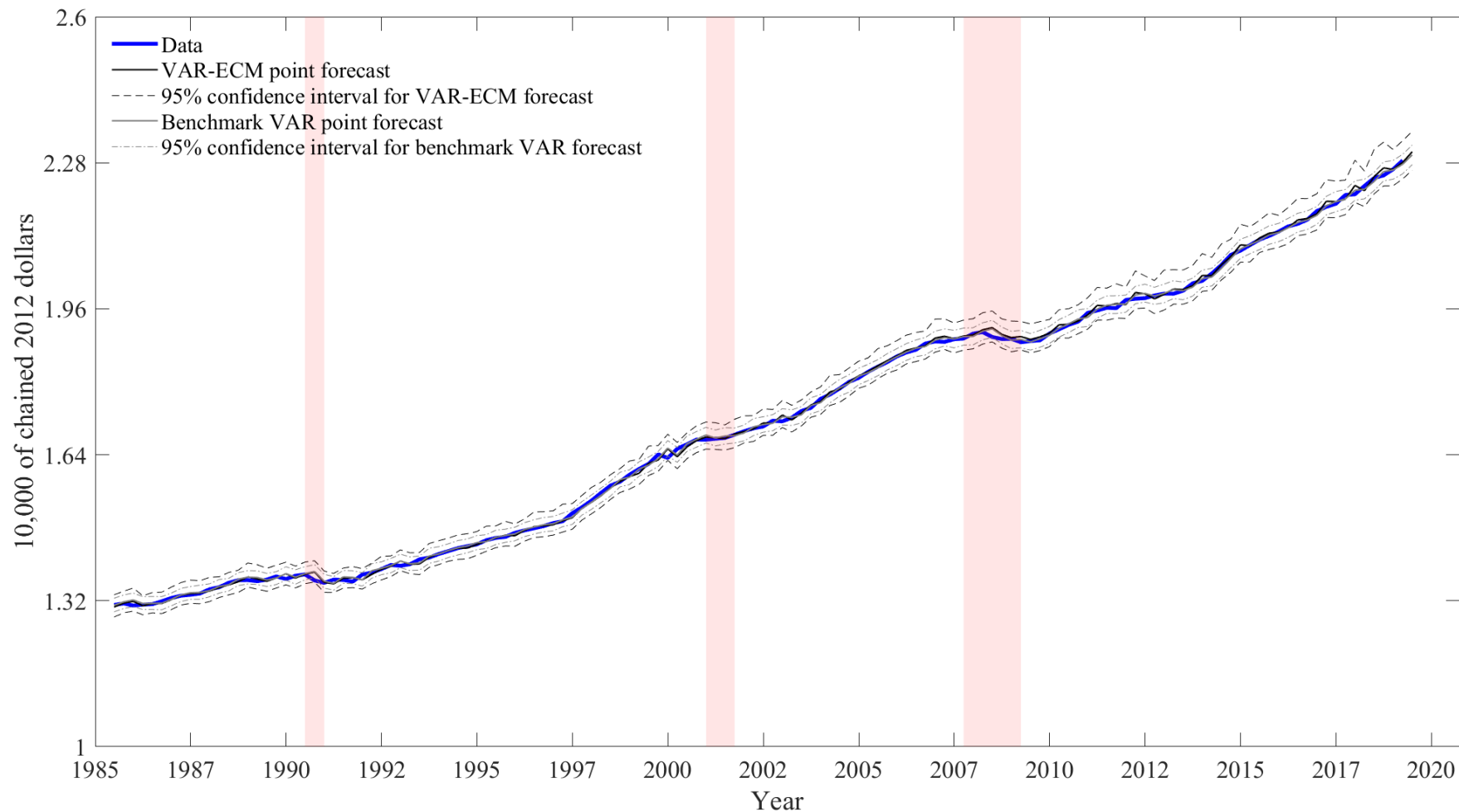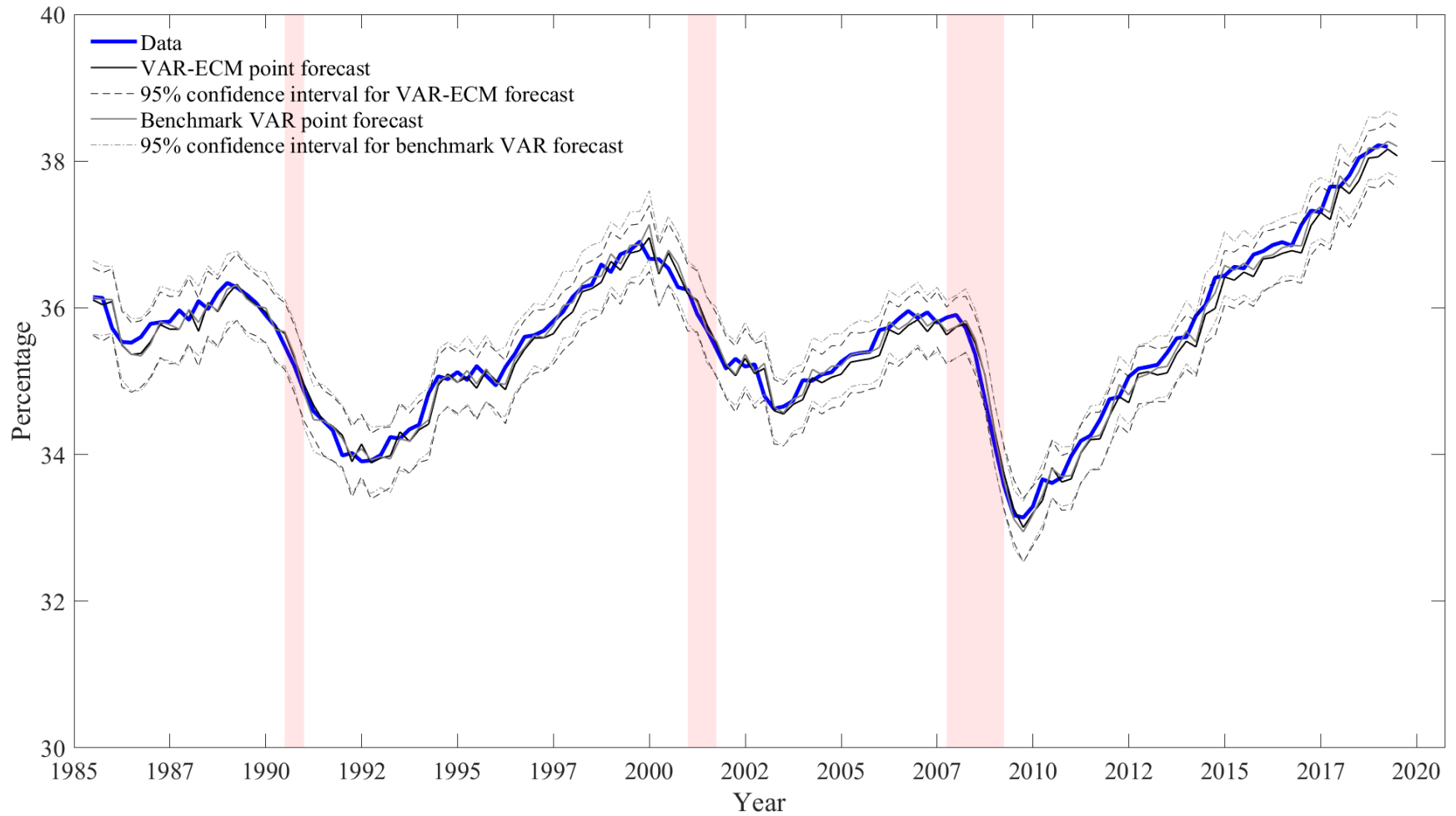
FIGURE 11. Out-of-sample 2-step ahead recursive forecasts for real output per capita

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.
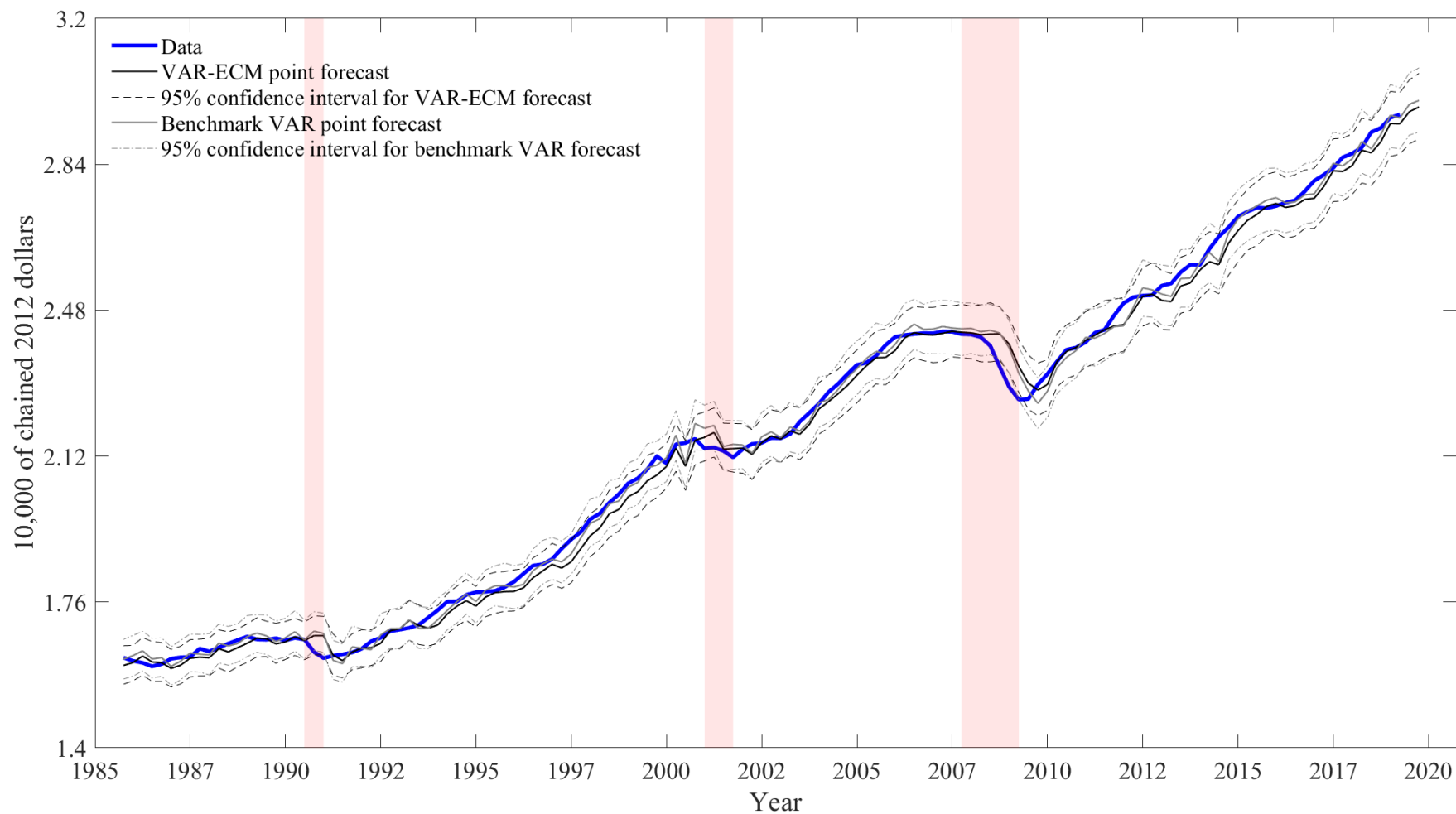
FIGURE 12. Out-of-sample 2-step ahead recursive forecasts for real consumption per capita

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.
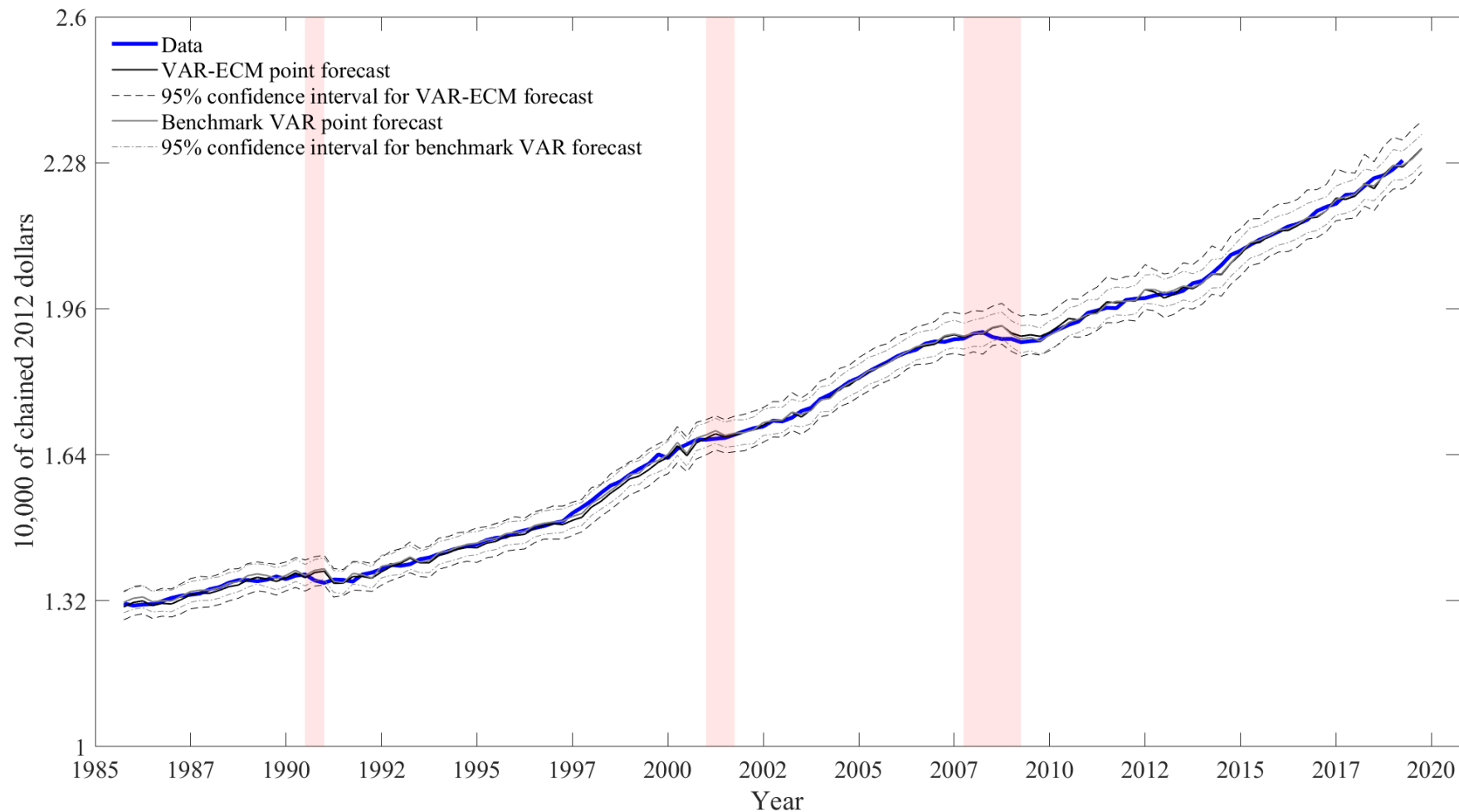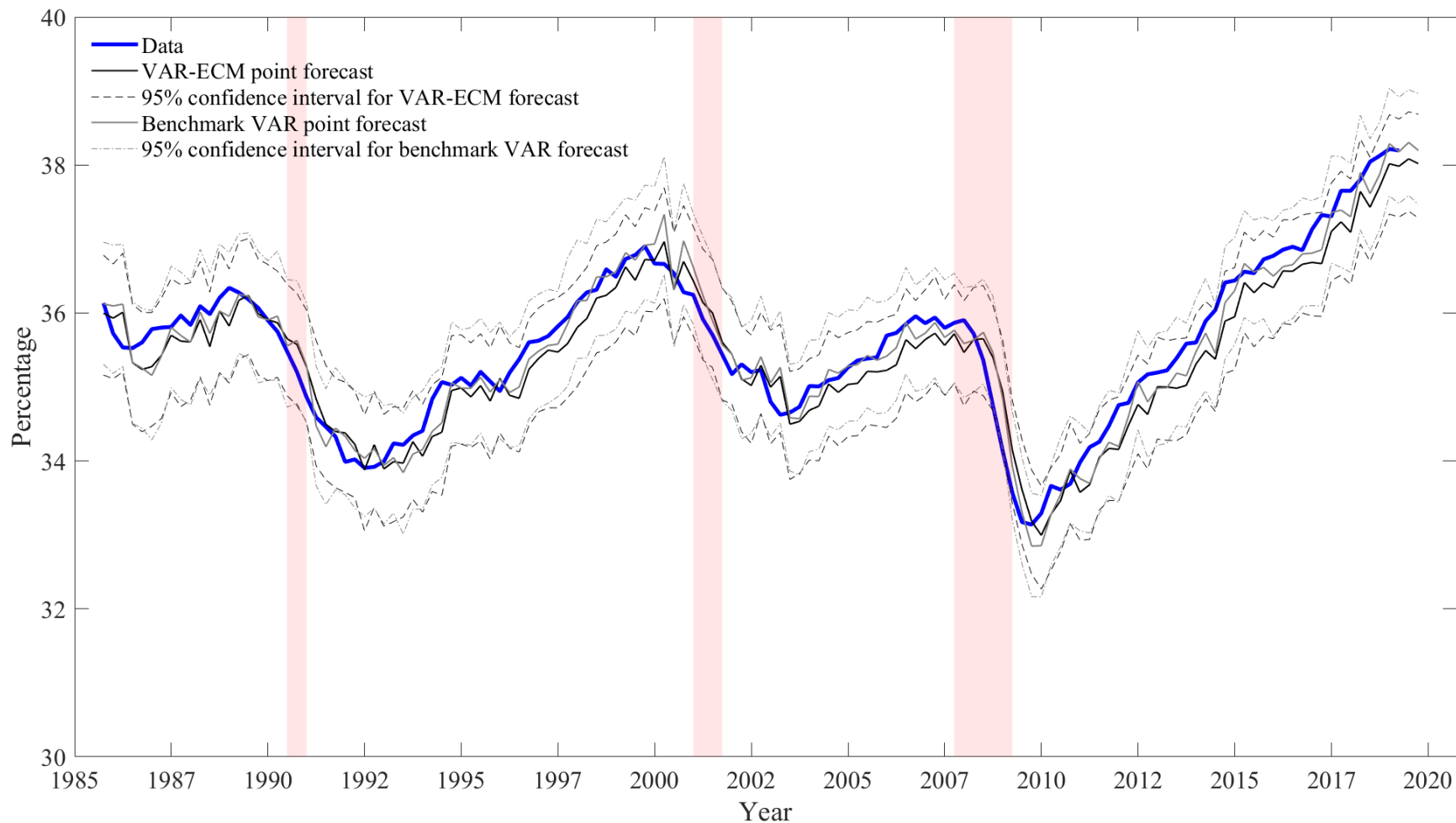
FIGURE 13. Out-of-sample 2-step ahead recursive forecasts for the fraction of time spent working

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.
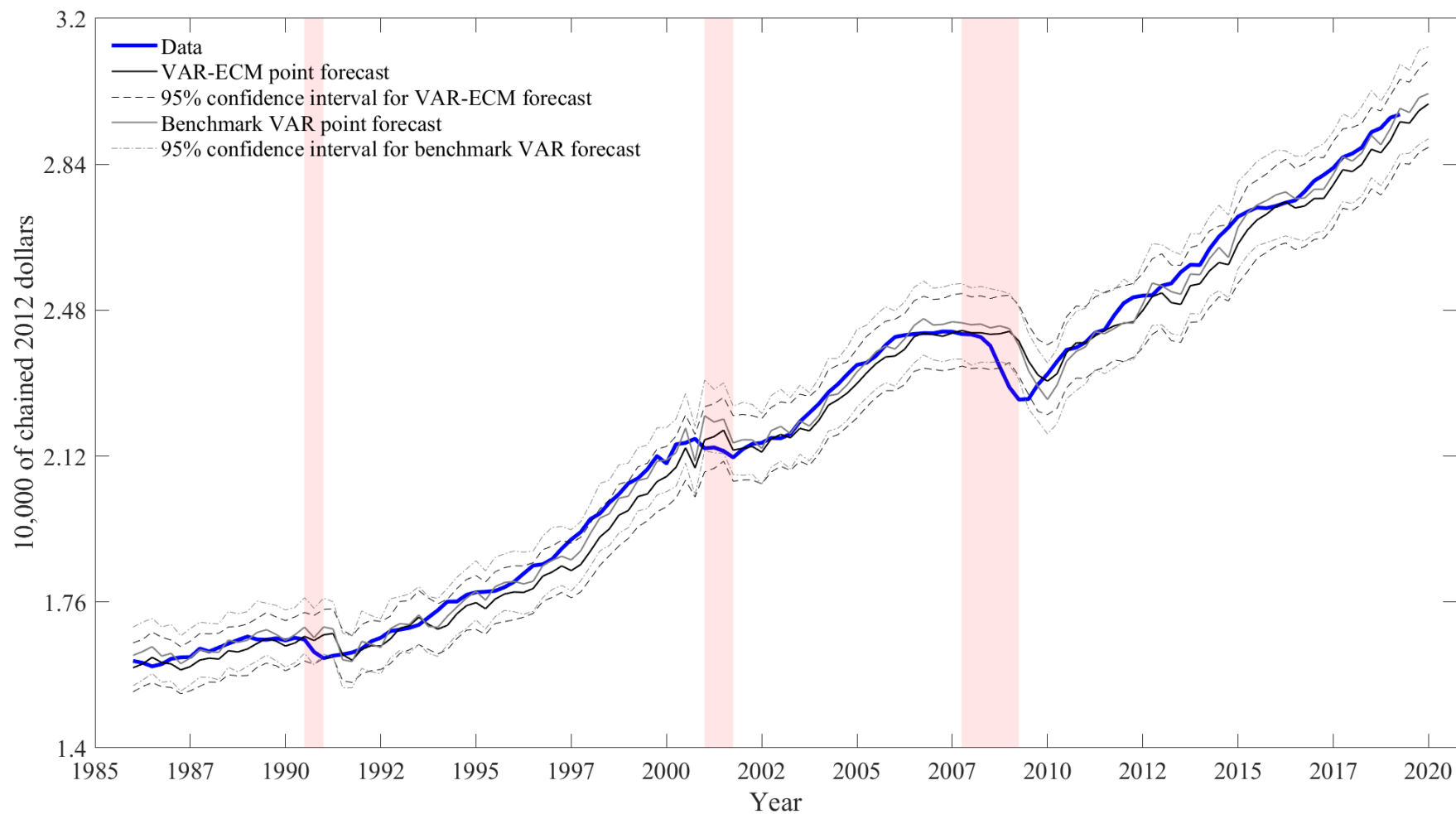
FIGURE 14. Out-of-sample 3-step ahead recursive forecasts for real output per capita

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.
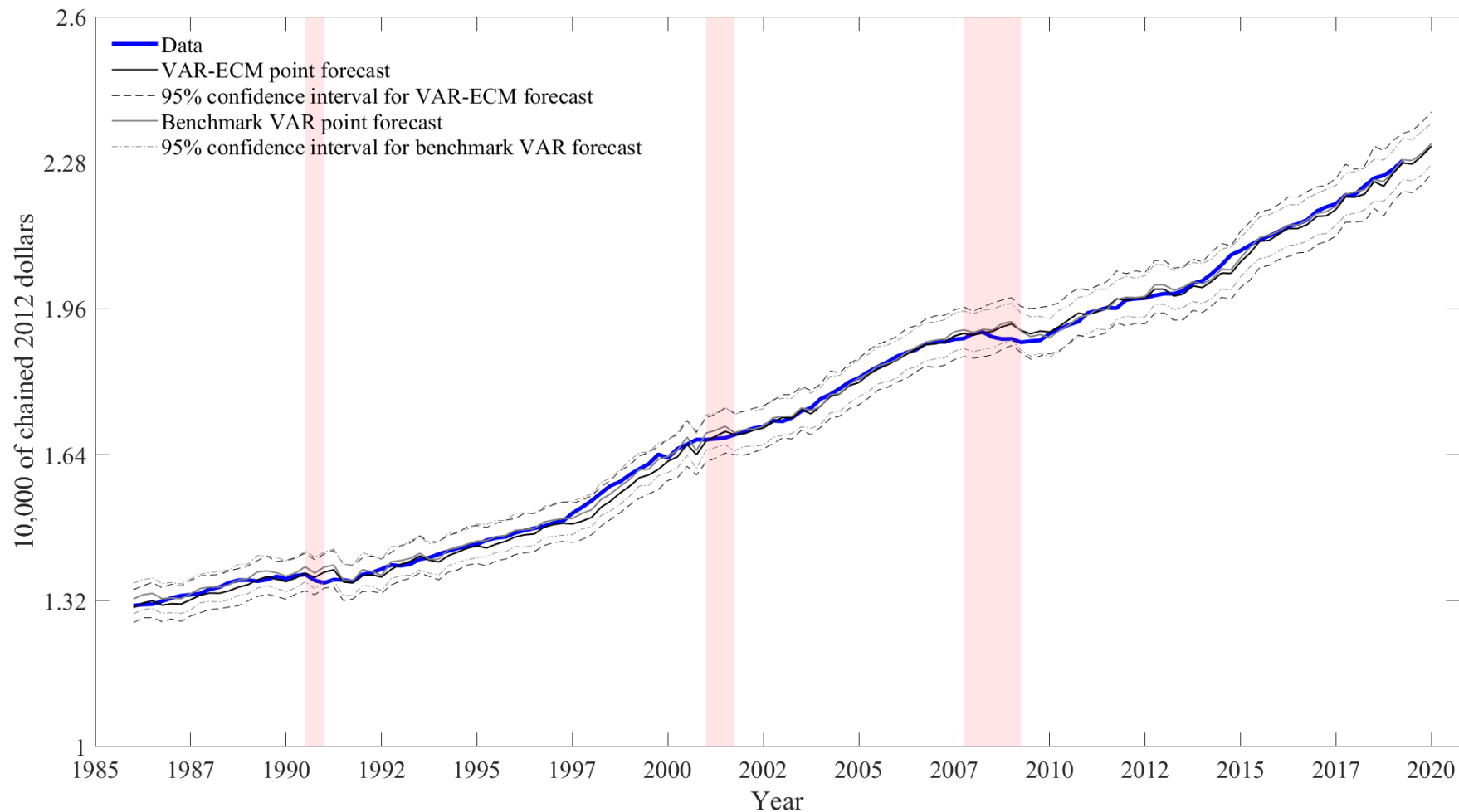
FIGURE 15. Out-of-sample 3-step ahead recursive forecasts for real consumption per capita

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.
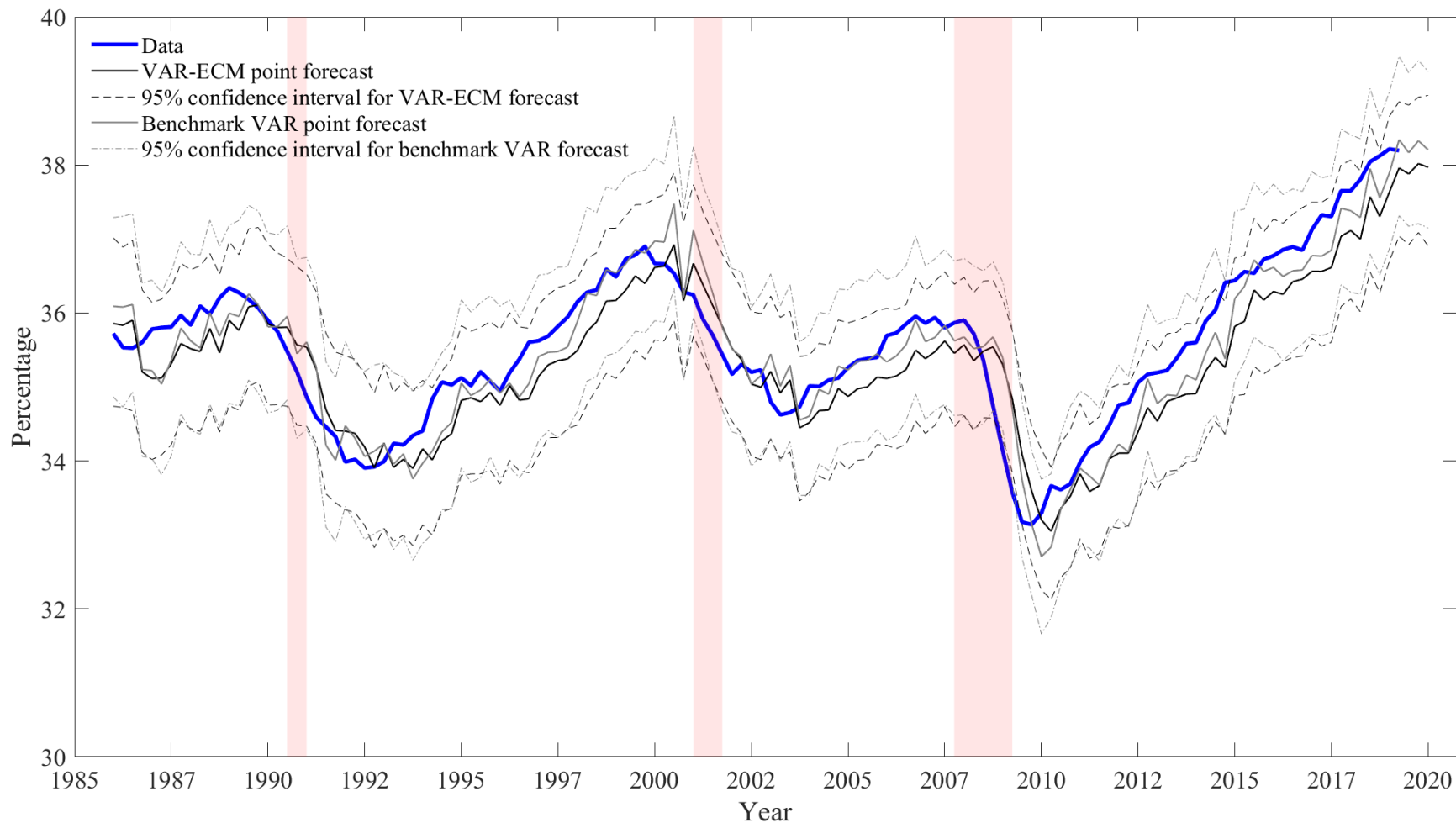
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FIGURE 16. Out-of-sample 3-step ahead recursive forecasts for the fraction of time spent working

Note: The solid thin lines denote the mean forecast calculated from 1,000 MC repetitions, the dashed and dotted lines the corresponding 95% confidence intervals, and the solid thick line the actual data. Shaded regions correspond to NBER recession dates.
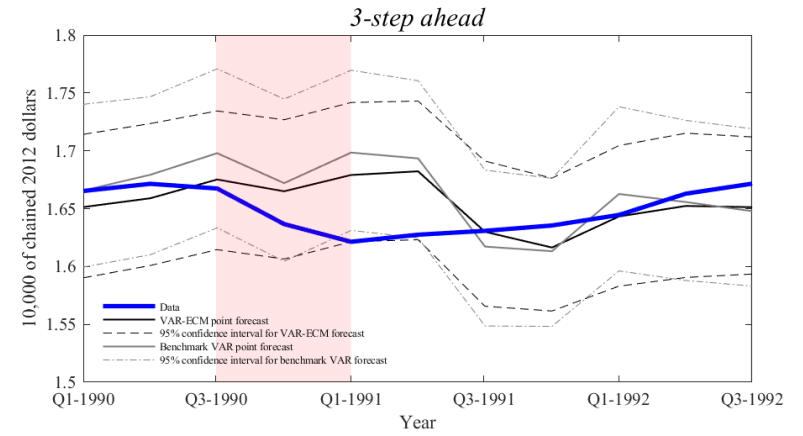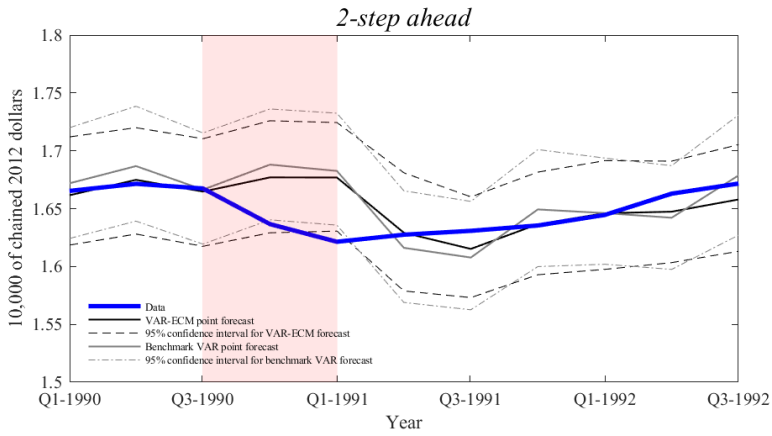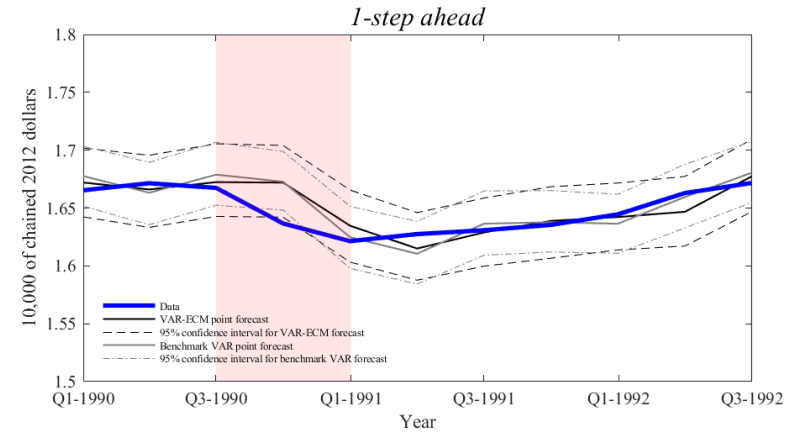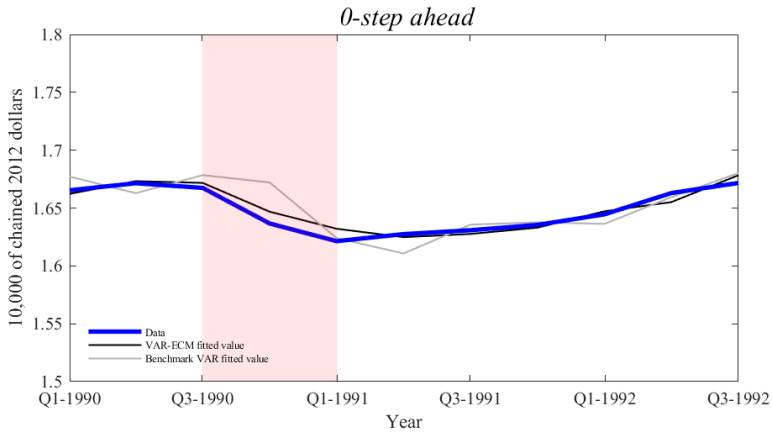
FIGURE 17. Recession of 1990–91: Out-of-sample 0-to-3-step ahead recursive forecasts for real output per capita

Note: In the top left figure, the solid thin lines correspond to fitted values. In the remaining figures, the solid thin lines denote the mean forecasts calculated over 1,000 MC repetitions and the dashed lines the corresponding 95% confidence intervals. In all figures the solid thick line denotes the Fred data. Shaded regions correspond to NBER recession dates.
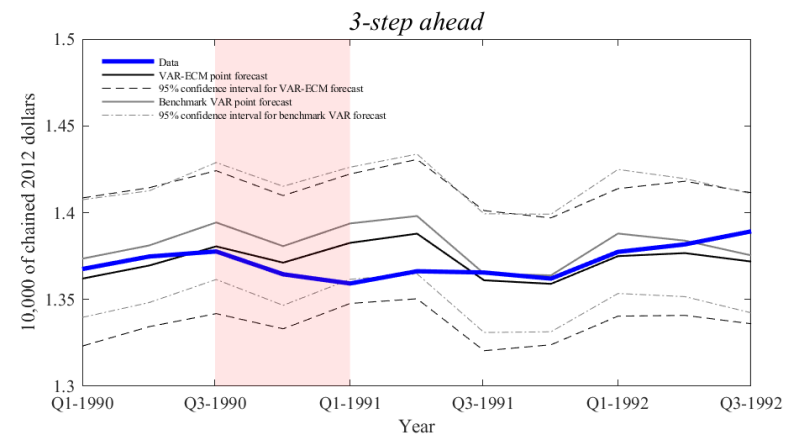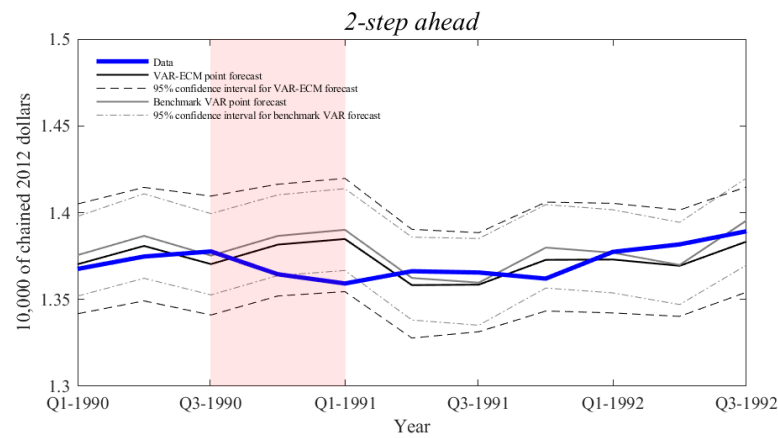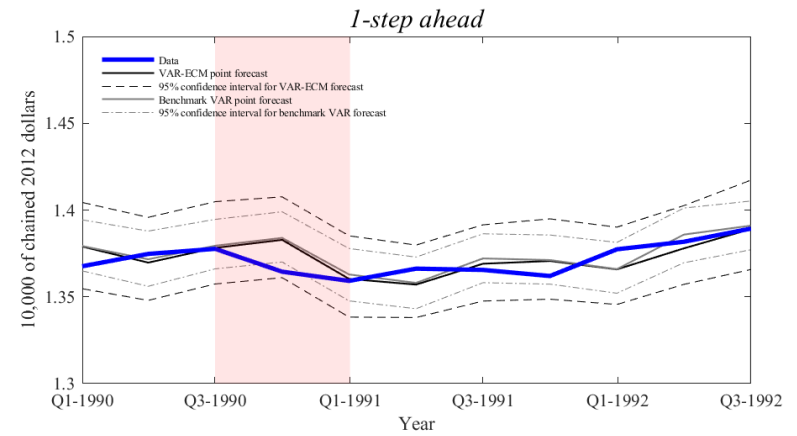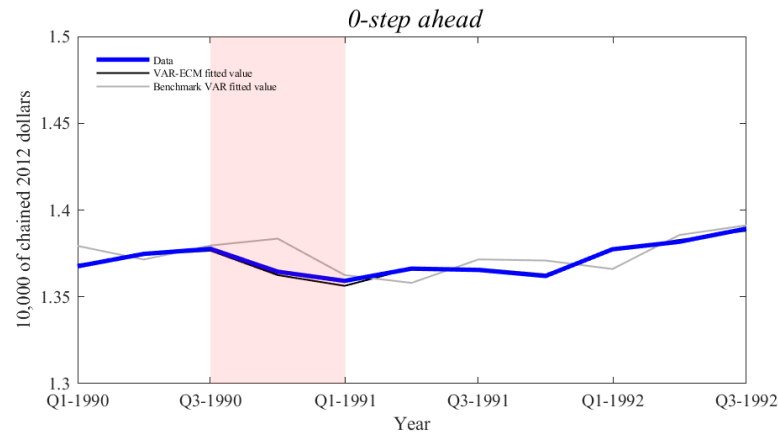
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FIGURE 18. Recession of 1990–91: Out-of-sample 0-to-3-step ahead recursive forecasts for real consumption per capita

Note: In the top left figure, the solid thin lines correspond to fitted values. In the remaining figures, the solid thin lines denote the mean forecasts calculated over 1,000 MC repetitions and the dashed lines the corresponding 95% confidence intervals. In all figures the solid thick line denotes the Fred data. Shaded regions correspond to NBER recession dates.
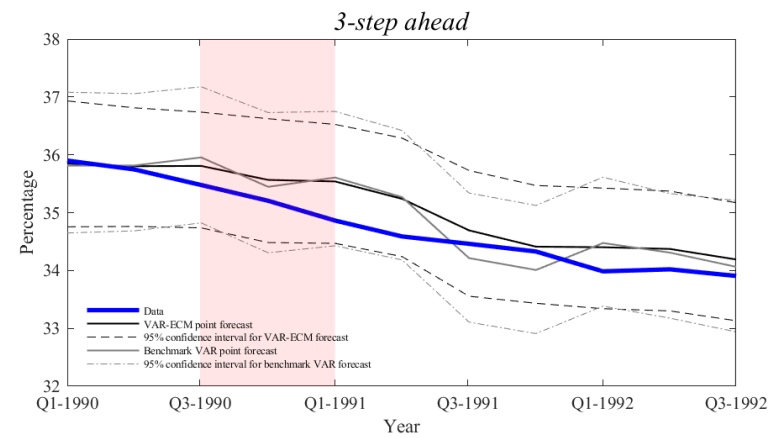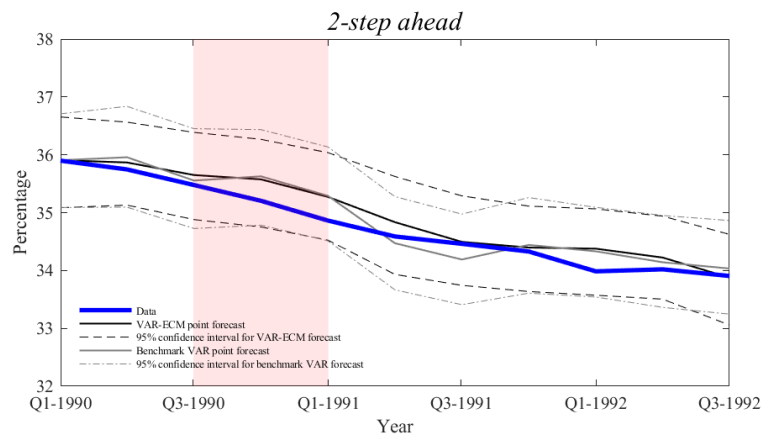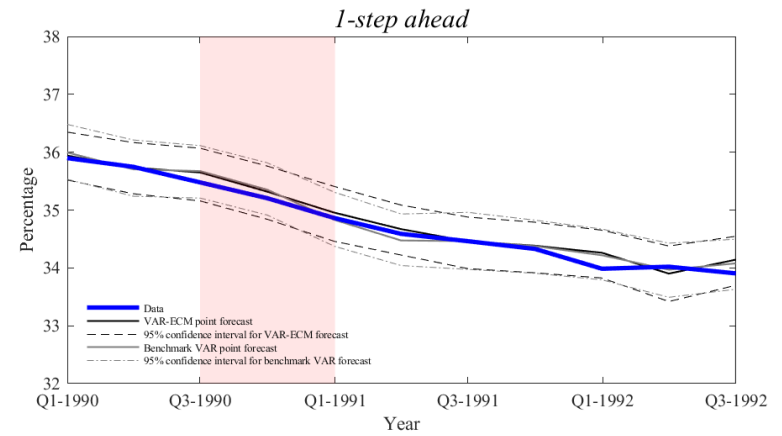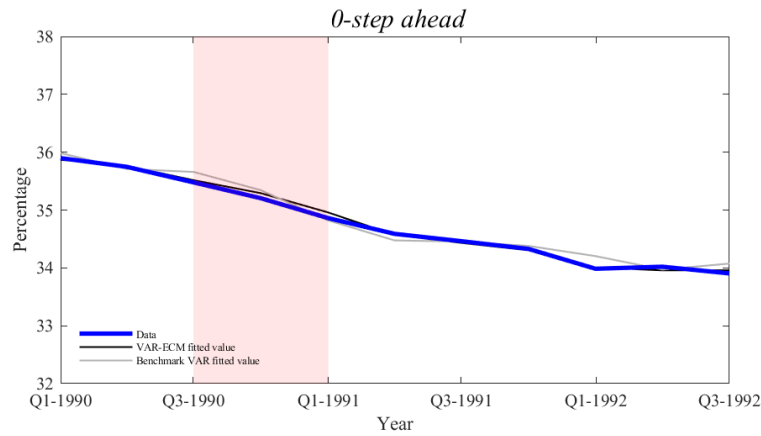
FIGURE 19. Recession of 1990–91: Out-of-sample 0-to-3-step ahead recursive forecasts for the fraction of time spent working

Note: In the top left figure, the solid thin lines correspond to fitted values. In the remaining figures, the solid thin lines denote the mean forecasts calculated over 1,000 MC repetitions and the dashed lines the corresponding 95% confidence intervals. In all figures the solid thick line denotes the Fred data. Shaded regions correspond to NBER recession dates.
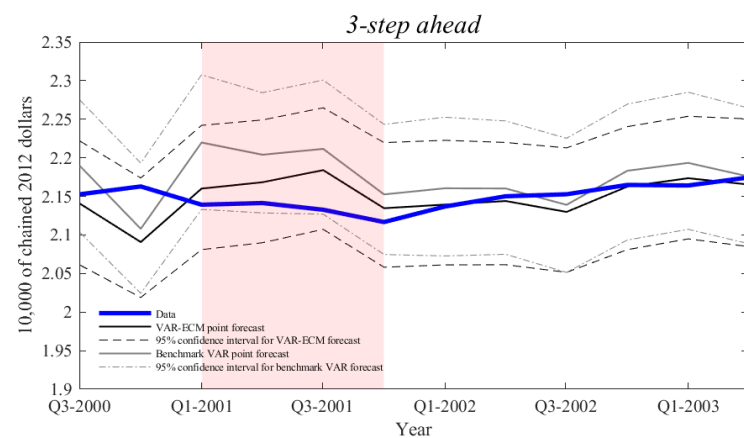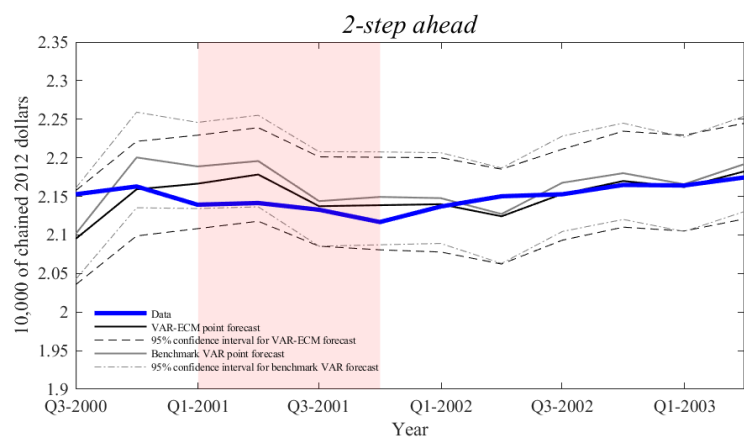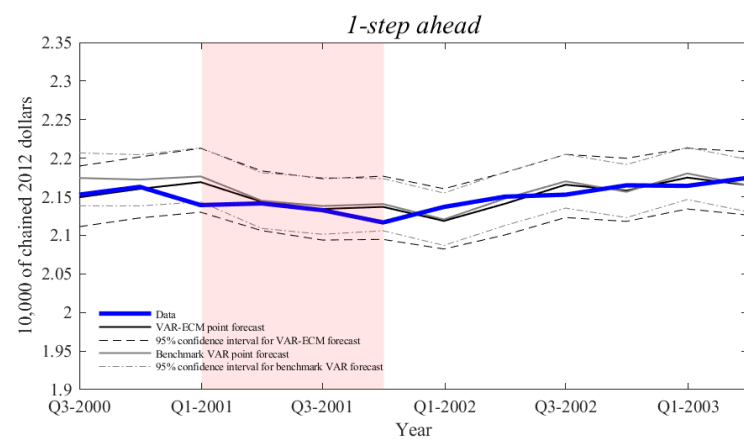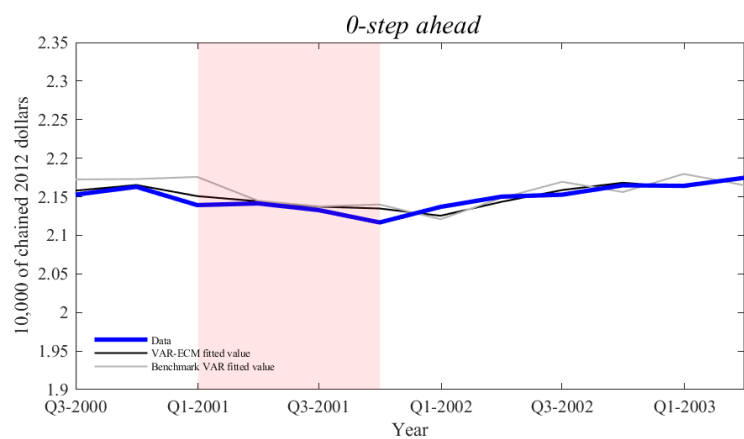
FIGURE 20. Recession of 2001: Out-of-sample 0-to-3-step ahead recursive forecasts for real output per capita

Note: In the top left figure, the solid thin lines correspond to fitted values. In the remaining figures, the solid thin lines denote the mean forecasts calculated over 1,000 MC repetitions and the dashed lines the corresponding 95% confidence intervals. In all figures the solid thick line denotes the Fred data. Shaded regions correspond to NBER recession dates.
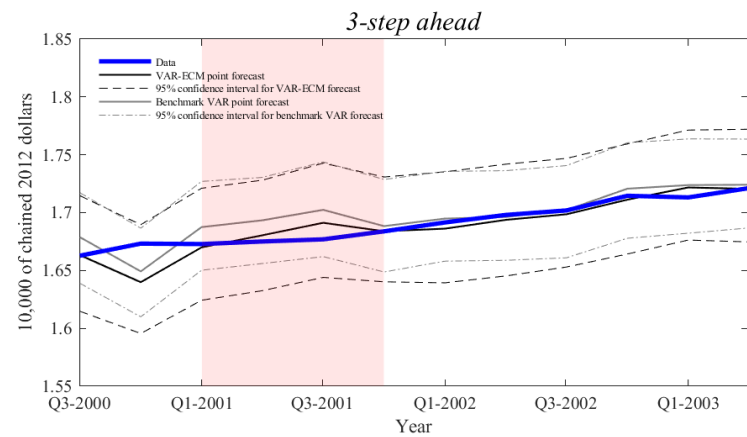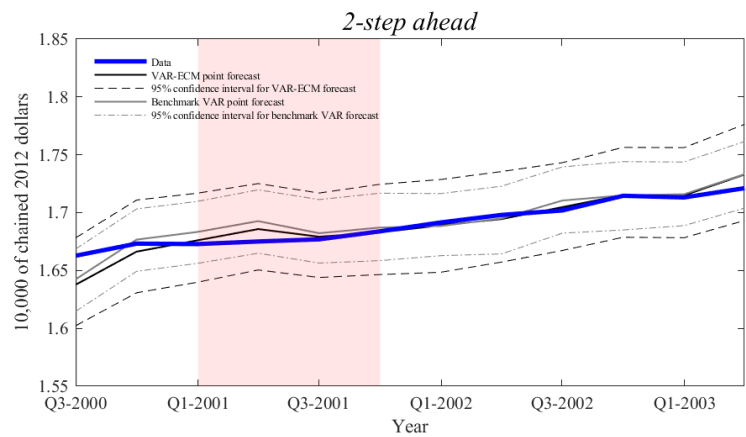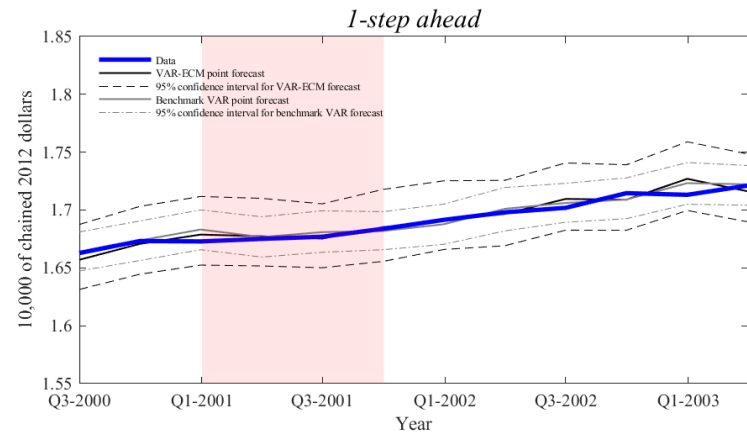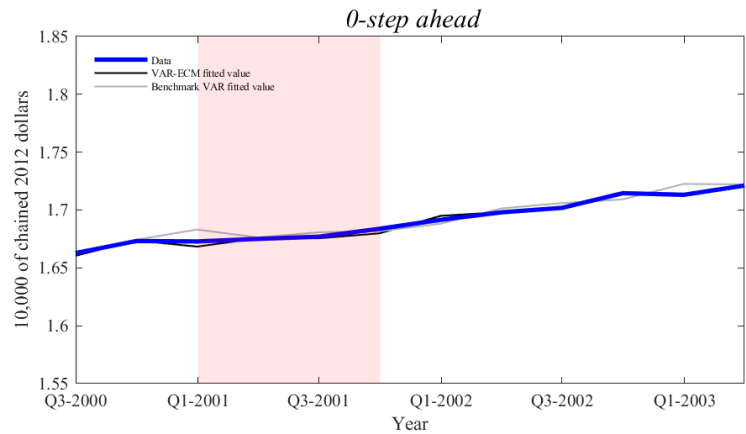
FIGURE 21. Recession of 2001: Out-of-sample 0-to-3-step ahead recursive forecasts for real consumption per capita

Note: In the top left figure, the solid thin lines correspond to fitted values. In the remaining figures, the solid thin lines denote the mean forecasts calculated over 1,000 MC repetitions and the dashed lines the corresponding 95% confidence intervals. In all figures the solid thick line denotes the Fred data. Shaded regions correspond to NBER recession dates.
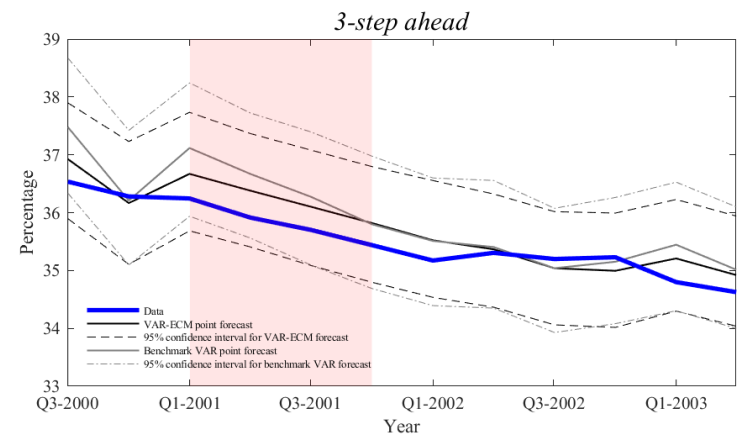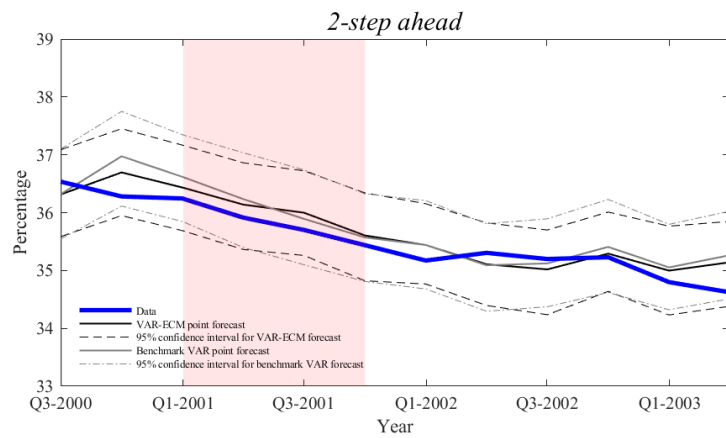
FIGURE 22. Recession of 2001: Out-of-sample 0-to-3-step ahead recursive forecasts for the fraction of time spent working

Note: In the top left figure, the solid thin lines correspond to fitted values. In the remaining figures, the solid thin lines denote the mean forecasts calculated over 1,000 MC repetitions and the dashed lines the corresponding 95% confidence intervals. In all figures the solid thick line denotes the Fred data. Sh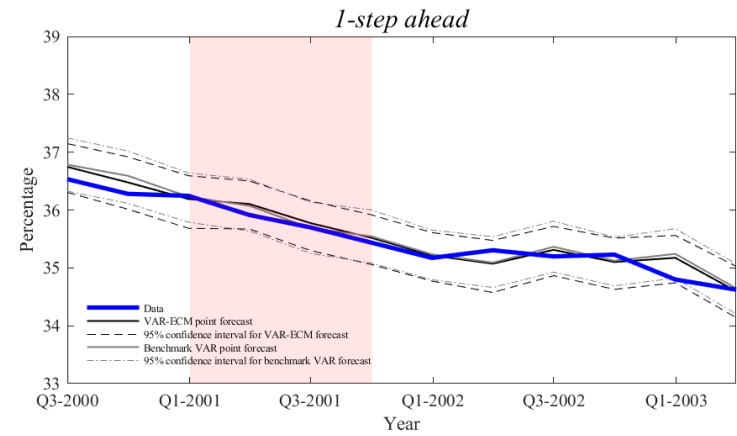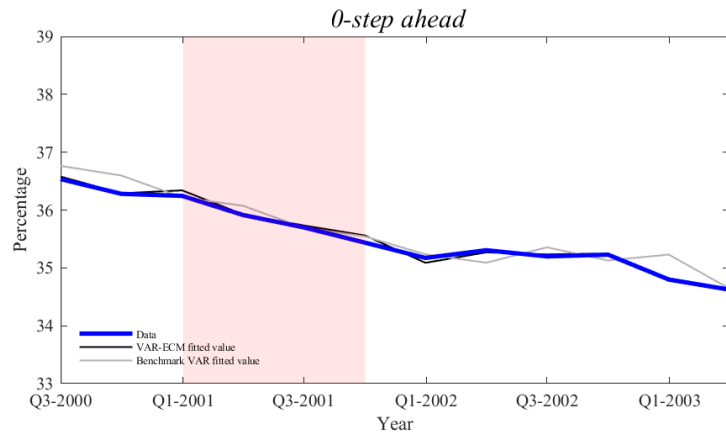aded regions correspond to NBER recession dates.