

# ADDITIONAL RESULTS FOR

## “ARE SPECTRAL ESTIMATORS USEFUL FOR LONG-RUN RESTRICTIONS IN SVARS?”

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### Abstract

This appendix documents results based on alternative bandwidth selection procedures and alternative spectral estimates, not shown on in the main paper. Figures A.1 and A.2 below show bias and RMSE of variance shares computed with the Newey-West estimator, using either a fixed bandwidth of  $b = 150$  or the automatic bandwidth selection scheme of Newey and West (1994). These figures complement what is shown in the main paper for the Andrews-Monahan estimator with  $b = 150$ .

Compared to the case of a large and fixed bandwidth, only two differences stand out. Estimating technology shares from a direct factorization of the Newey West spectrum perform worse compared to the large bandwidth case, both in terms of bias and RMSE, unless technology accounts for less than two thirds of business cycle fluctuations in output (Figure A.1). Furthermore, the RMSE of impact coefficients estimated with CEV-NW is almost flat at around two thirds of the true value, independently of the true technology share (Figure A.2).

Figure A.3 shows results when using the Andrews-Monahan estimator with automatic bandwidth selection. Since automatic bandwidth selection picks only very small bandwidths for the Andrews-Monahan estimator, the results are almost indistinguishable from the OLS estimator.

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### References

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- Newey, W., West, K., 1987. A simple positive semi-definite heteroskedasticity and autocorrelation consistent covariance matrix. *Econometrica* 55, 703–708.
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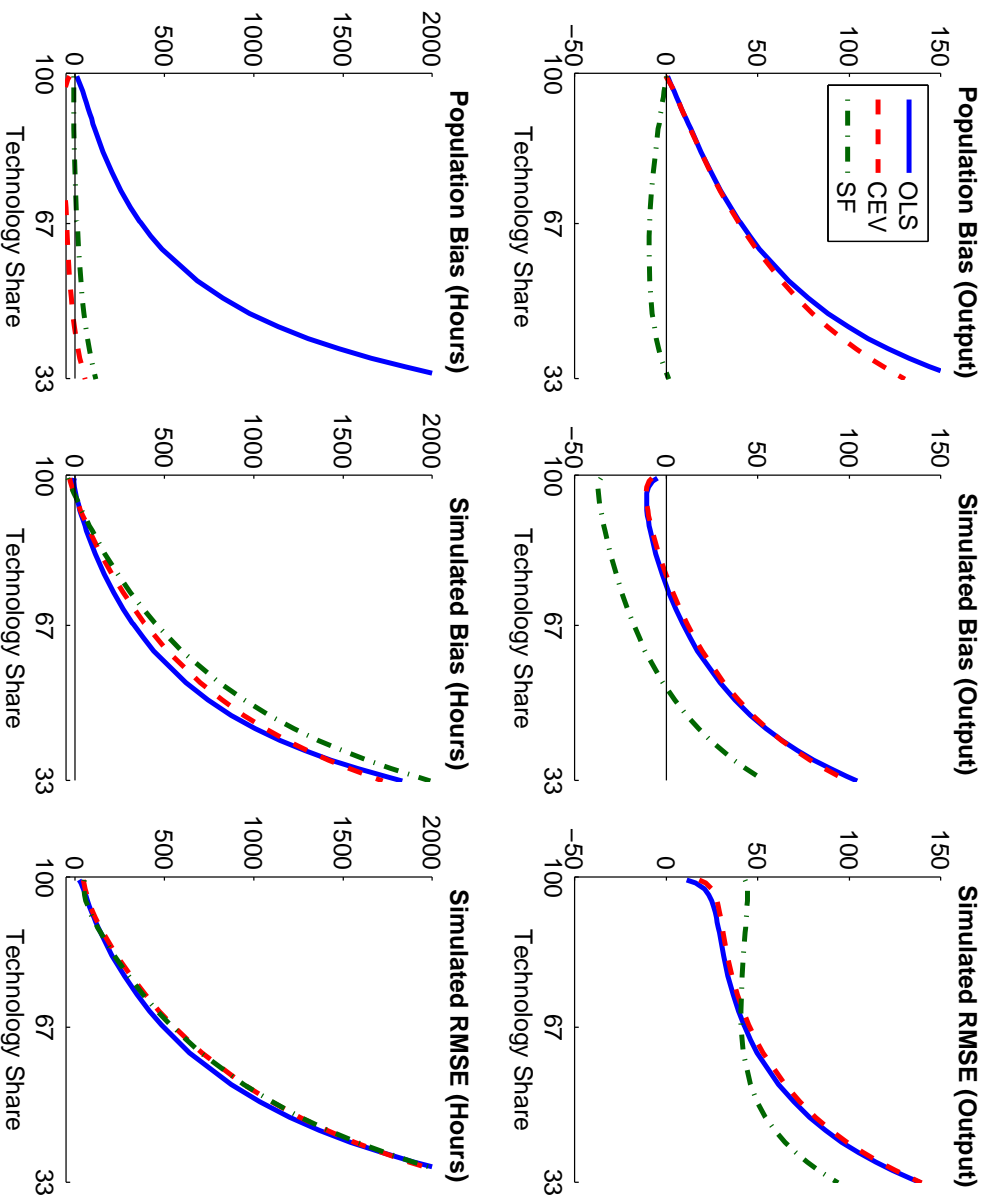
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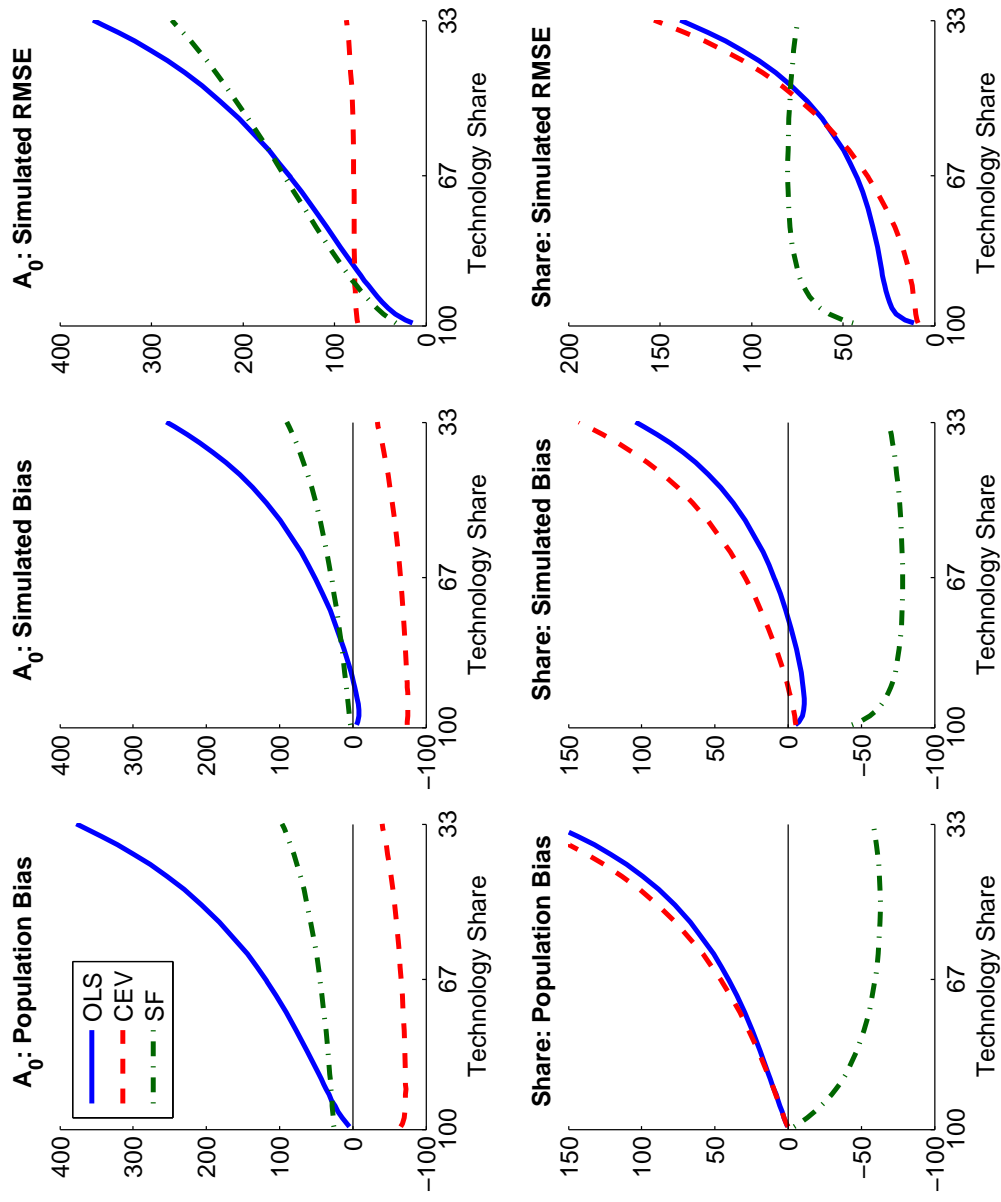
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Figure A.1: Technology Shares in Fluctuations of Output and Hours (Newey-West)



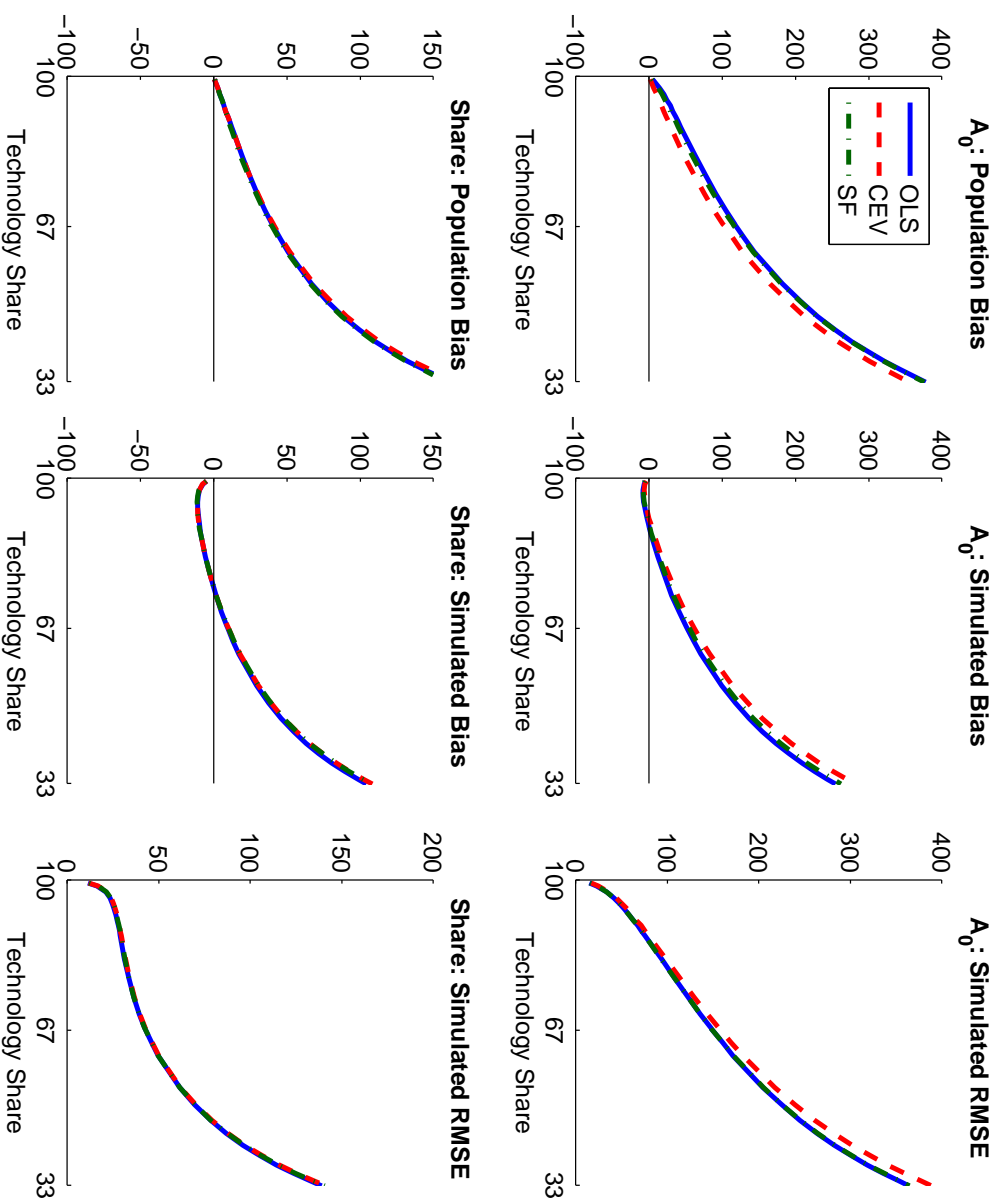
Note: Percentage points relative to the model's true technology share. Top row reports bias and RMSE for variance decomposition of output, bottom row for hours. Newey-West estimators of the spectral density used for CEV and SF with a fixed bandwidth of  $b = 150$ . "Technology share" on the x-axis is the true percentage of bandpass-filtered output variability due to technology shocks in the model economy.

Figure A.2: Simulations with Automatic Bandwidth Selection (Newey-West)



Note: Estimated impact responses of hours to technology (top row) and technology share (bottom row) when using the Newey-West estimator with automatic bandwidth selection (Newey and West, 1994). "Technology share" on the x-axis is the true percentage of bandpass-filtered output variability due to technology shocks in the model economy.

Figure A.3: Simulations with Automatic Bandwidth Selection (Andrews-Monahan)



Note: Estimated impact responses of hours to technology (top row) and technology share (bottom row) when using the Andrews-Monahan estimator with automatic bandwidth selection (Newey and West, 1994). “Technology share” on the x-axis is the true percentage of bandpass-filtered output variability due to technology shocks in the model economy.