Monetary Policy across Space and Time

Supplementary Appendix

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This Appendix contains supplementary material for the paper. In Figure 1, we present the persistence of our estimated time varying parameters using the quasi-Bayesian methodology[1]. Figure 2 displays the estimated conditional volatilities over time. Due to space considerations and for clarity of exposition, the main paper only includes impulse responses for selected periods and variables. In Figures 3-5 and Figures 6-8 below we present the responses to monetary policy shocks for all periods and all additional variables respectively. Figures 9-17 contain the 64% posterior bands around the estimated impulse responses for selected periods and variables. Figures 18-24 and Figures 25-28 present additional robustness results and structural analysis respectively using German instead of Euroarea data.

1   Additional results

Figure 1: Persistence of estimated parameters

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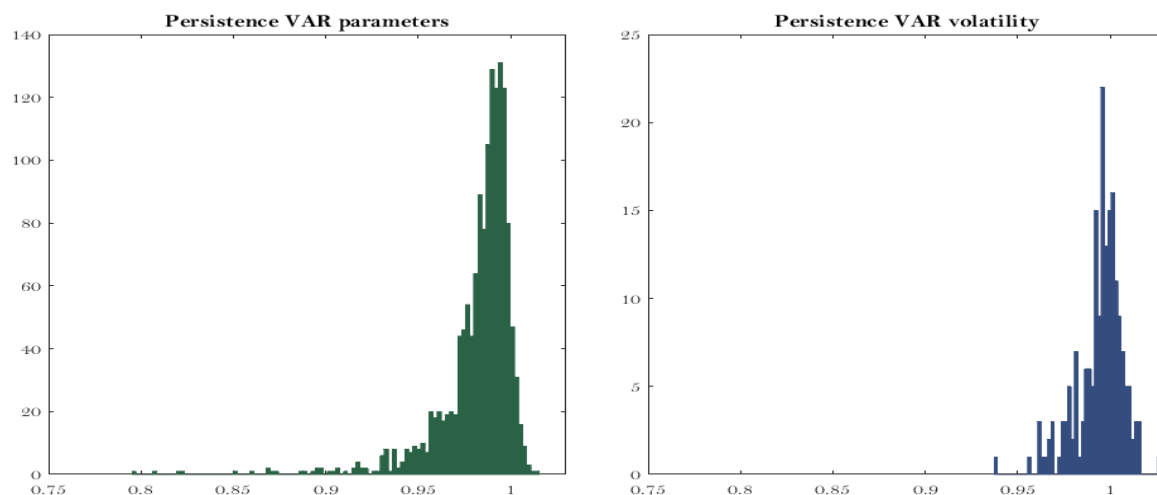
[1]For the posterior draws of each estimated time-varying parameter, we fit an AR(1) with an intercept and report a histogram of all these different AR coefficients.
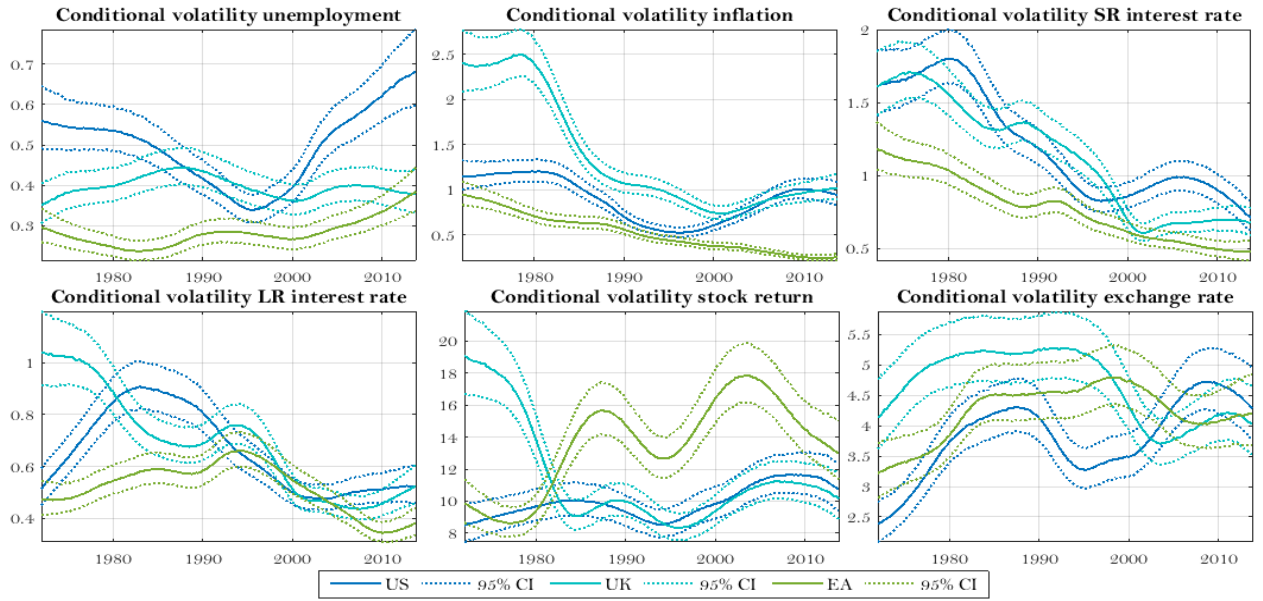
Figure 2: Conditional Volatility

Conditional volatility unemployment
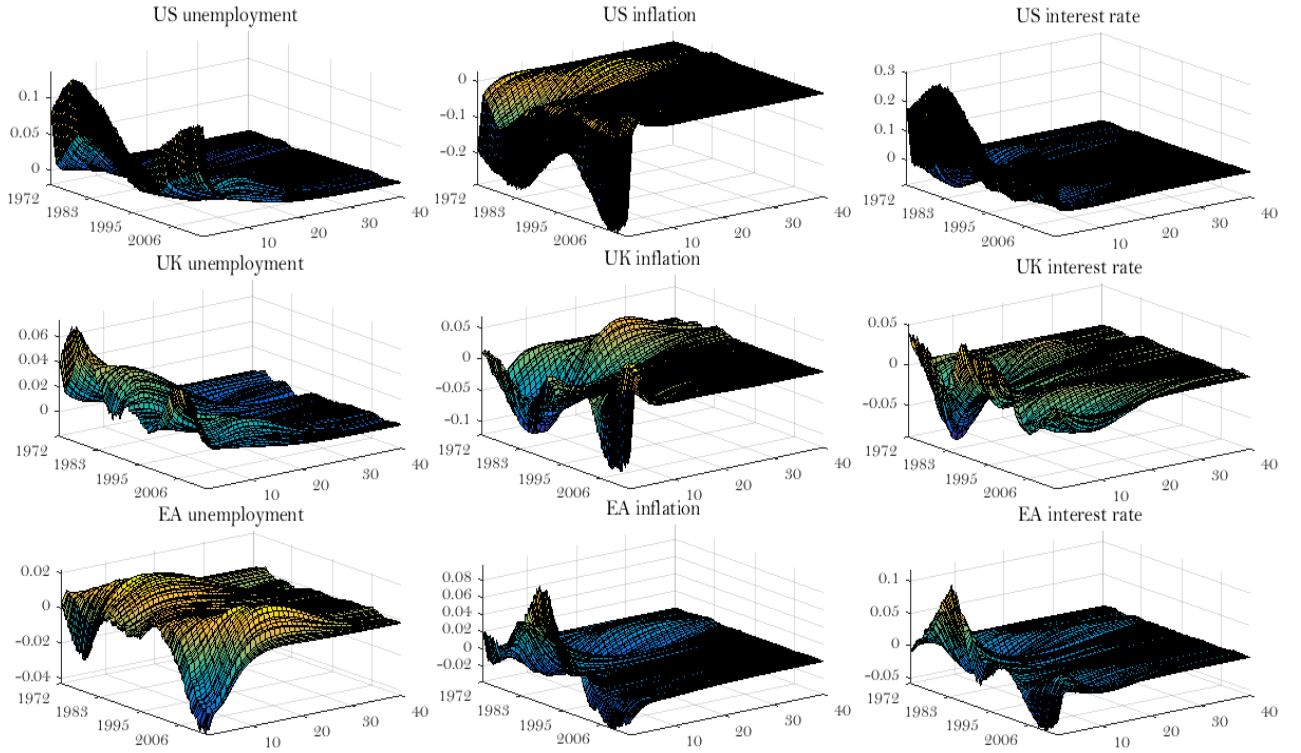
Conditional volatility inflation

Conditional volatility SR interest rate

Conditional volatility LR interest rate

Conditional volatility stock return

Conditional volatility exchange rate

US ·········· 95% CI   UK ·········· 95% CI   EA ·········· 95% CI

Figure 3: US policy shock

US unemployment

US inflation

US interest rate

UK unemployment

UK inflation

UK interest rate

EA unemployment

EA inflation

EA interest rate

2

Figure 4: US policy shock

US LR rate

US stock returns

US exchange rate

UK LR rate

UK stock returns

UK exchange rate

EA LR rate

EA stock returns

EA exchange rate

Commodity price

Figure 5: UK policy shock

US unemployment

US inflation

US interest rate

UK unemployment

UK inflation

UK interest rate

EA unemployment

EA inflation

EA interest rate

3

Figure 6: UK policy shock

US LR rate

US stock returns

US exchange rate

UK LR rate

UK stock returns

UK exchange rate

EA LR rate

EA stock returns

EA exchange rate

Commodity price

Figure 7: EA policy shock

US unemployment

US inflation

US interest rate

UK unemployment

UK inflation

UK interest rate

EA unemployment

EA inflation

EA interest rate

4

Figure 8: EA policy shock
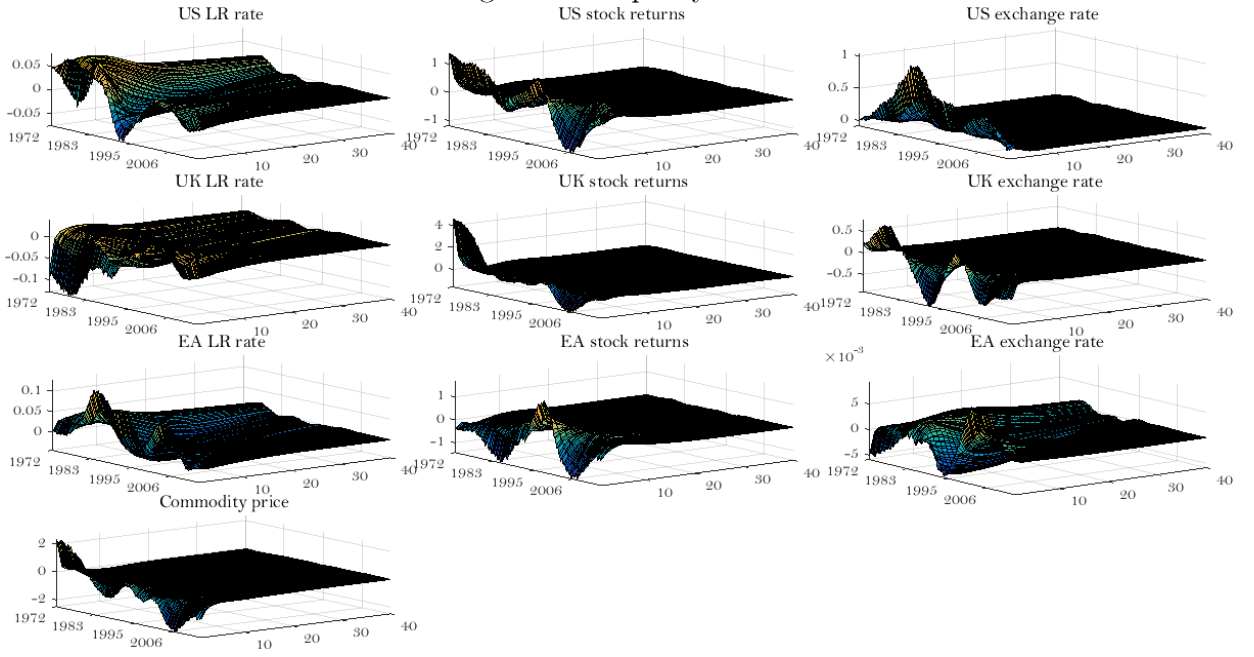
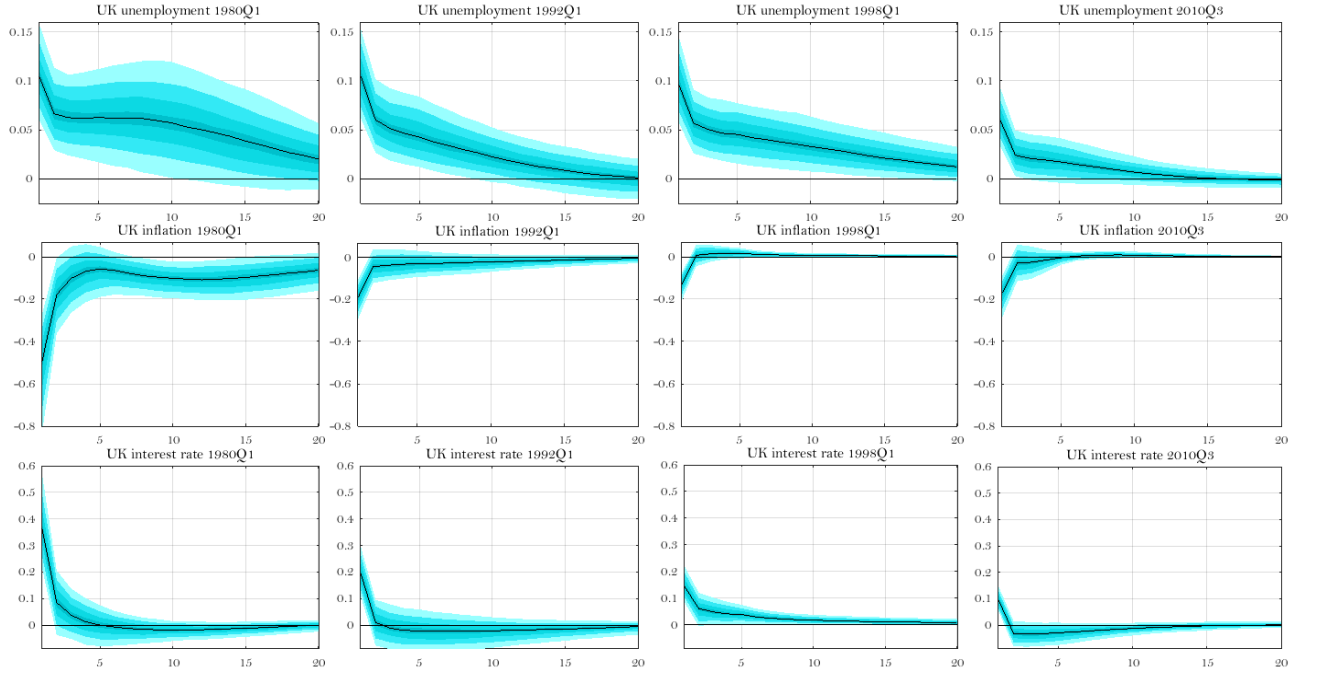Figure 9: Domestic effects US
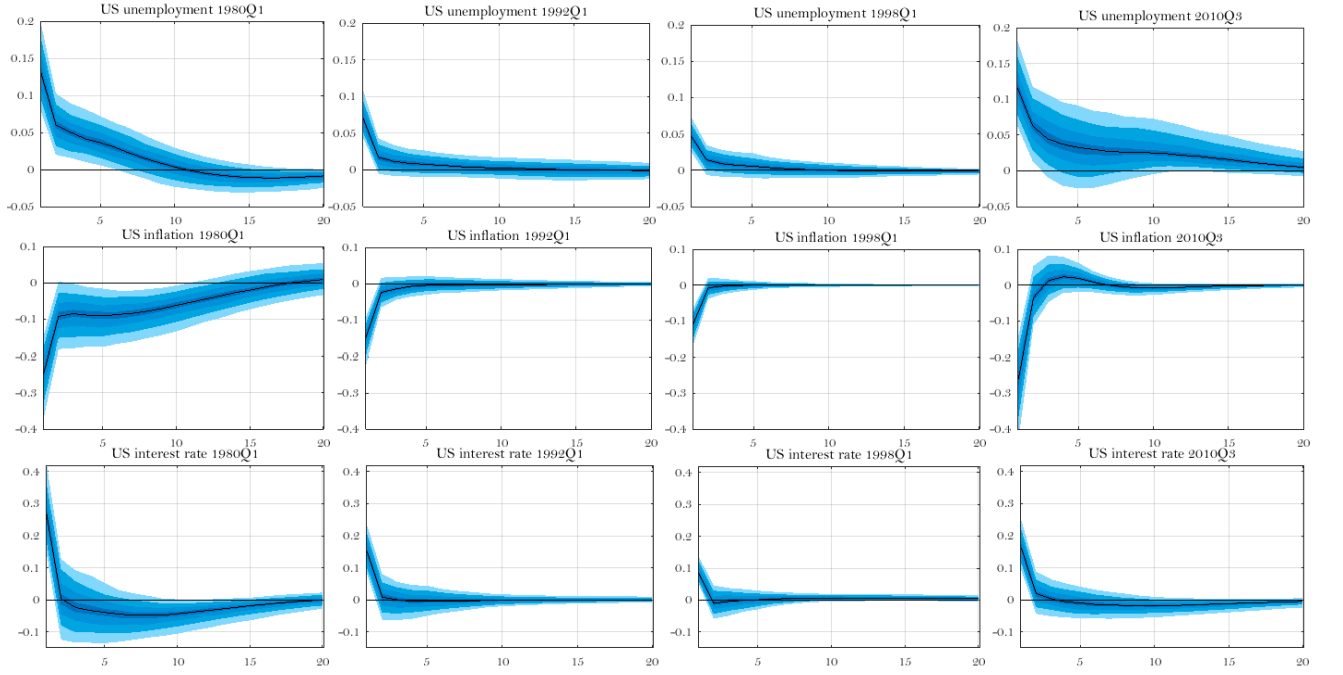
Figure 10: Domestic effects UK

UK unemployment 1980Q1 | UK unemployment 1992Q1 | UK unemployment 1998Q1 | UK unemployment 2010Q3

UK inflation 1980Q1 | UK inflation 1992Q1 | UK inflation 1998Q1 | UK inflation 2010Q3

UK interest rate 1980Q1 | UK interest rate 1992Q1 | UK interest rate 1998Q1 | UK interest rate 2010Q3

Figure 11: Domestic effects EA

EA unemployment 1980Q1 | EA unemployment 1992Q1 | EA unemployment 1998Q1 | EA unemployment 2010Q3

EA inflation 1980Q1 | EA inflation 1992Q1 | EA inflation 1998Q1 | EA inflation 2010Q3

EA interest rate 1980Q1 | EA interest rate 1992Q1 | EA interest rate 1998Q1 | EA interest rate 2010Q3
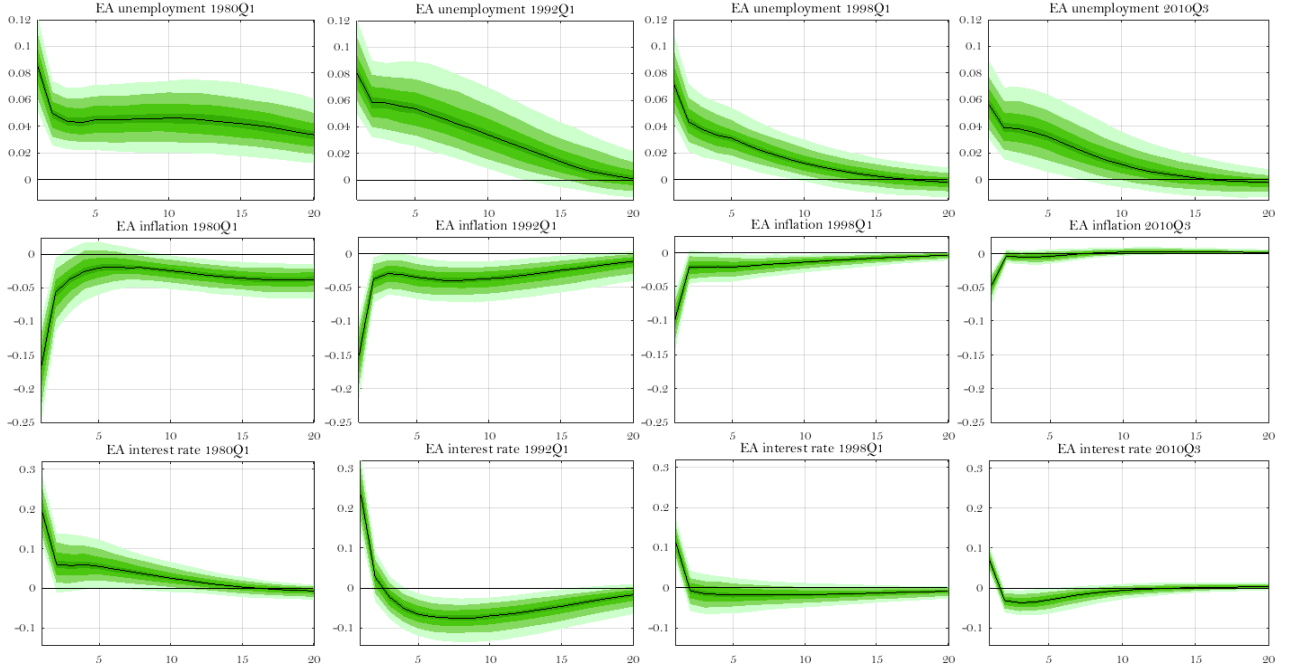
Figure 12: Spillover effects US
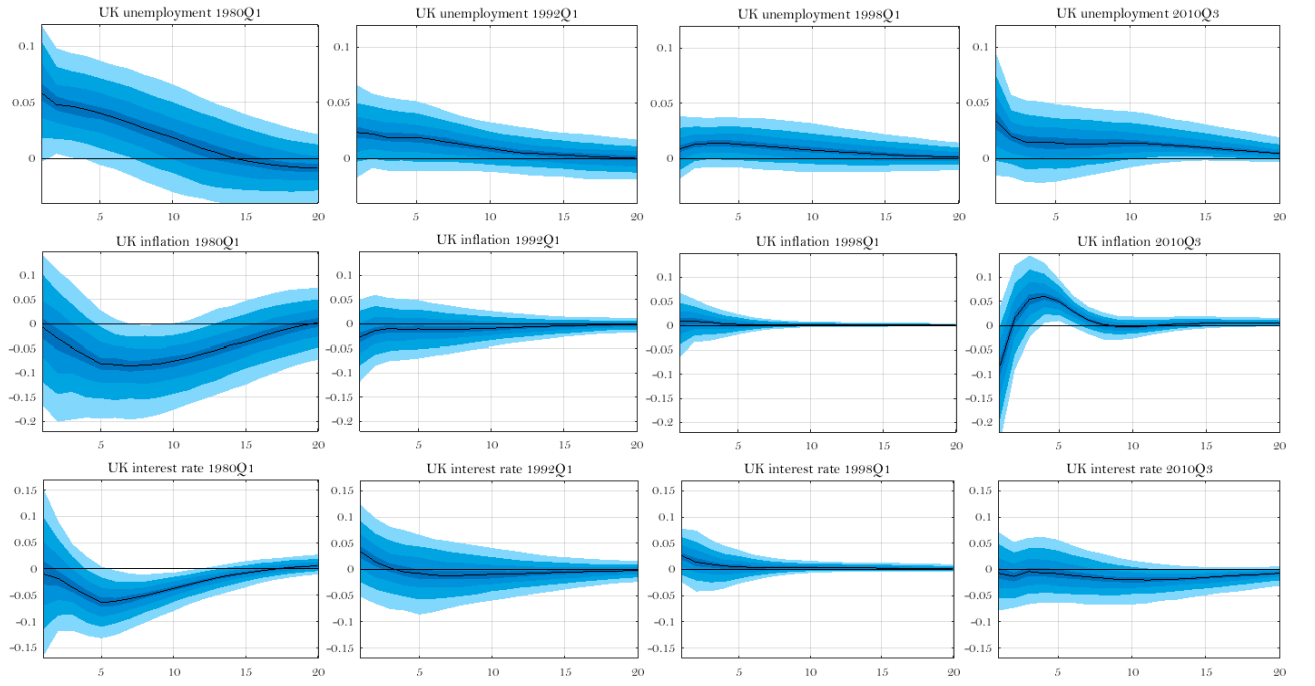
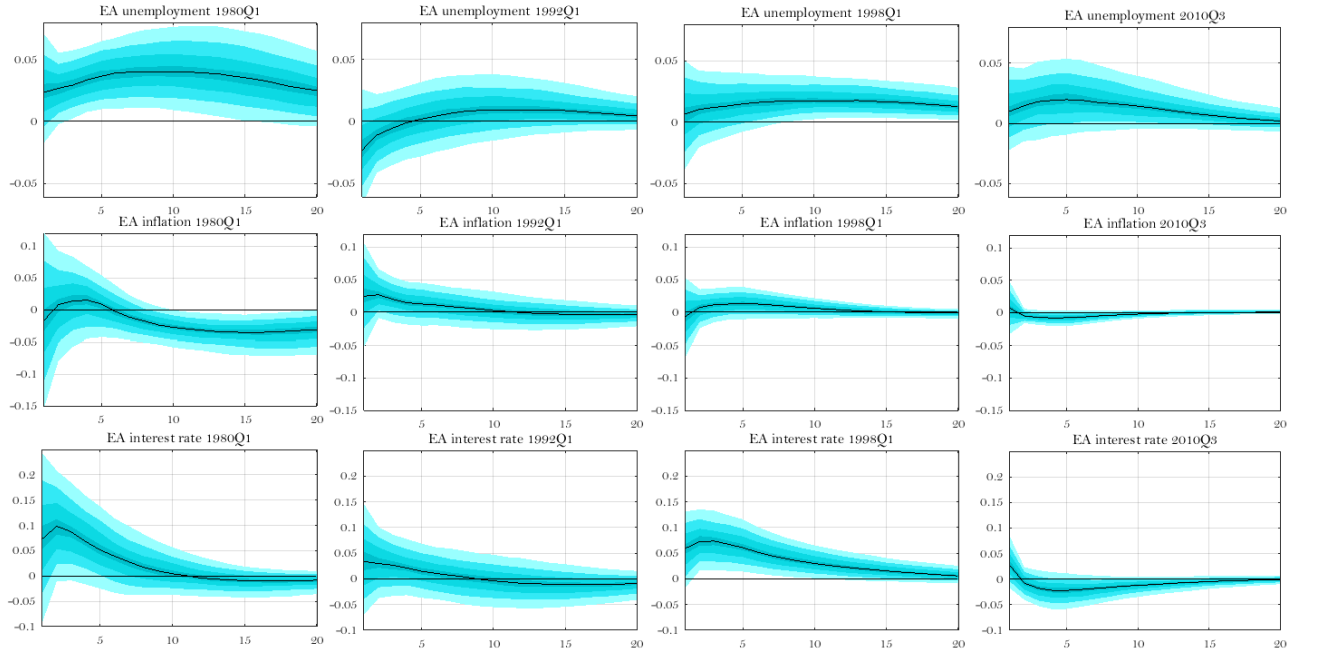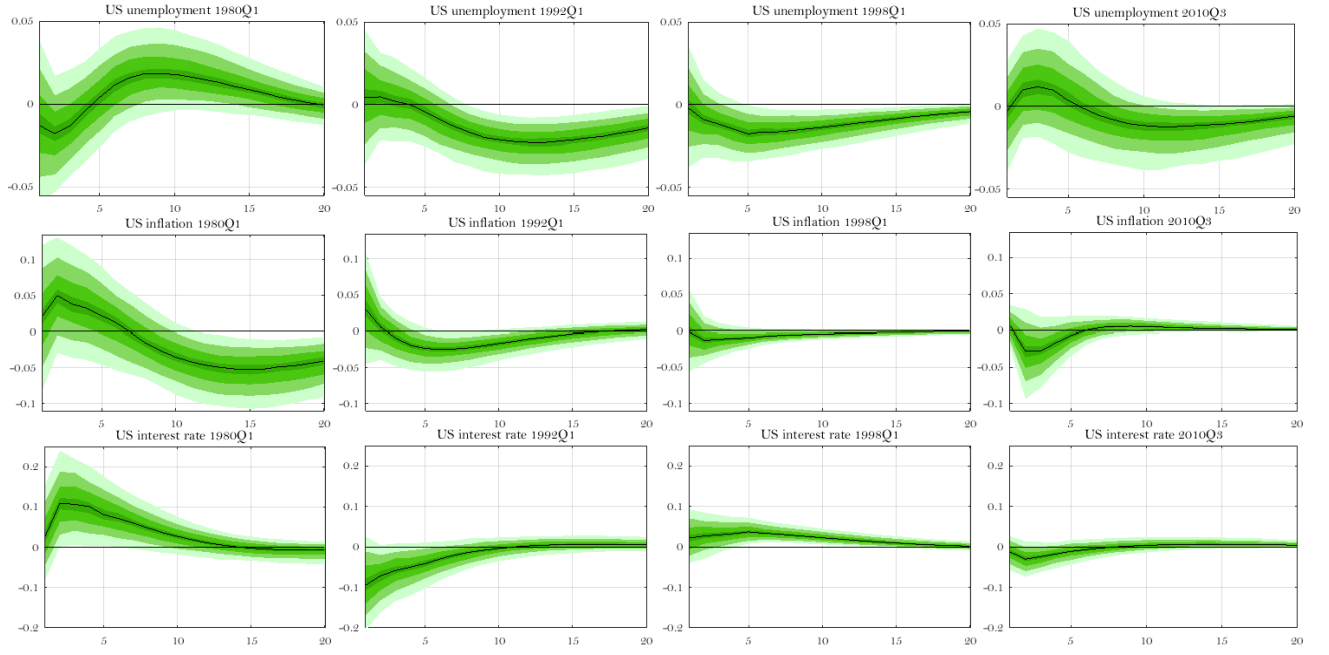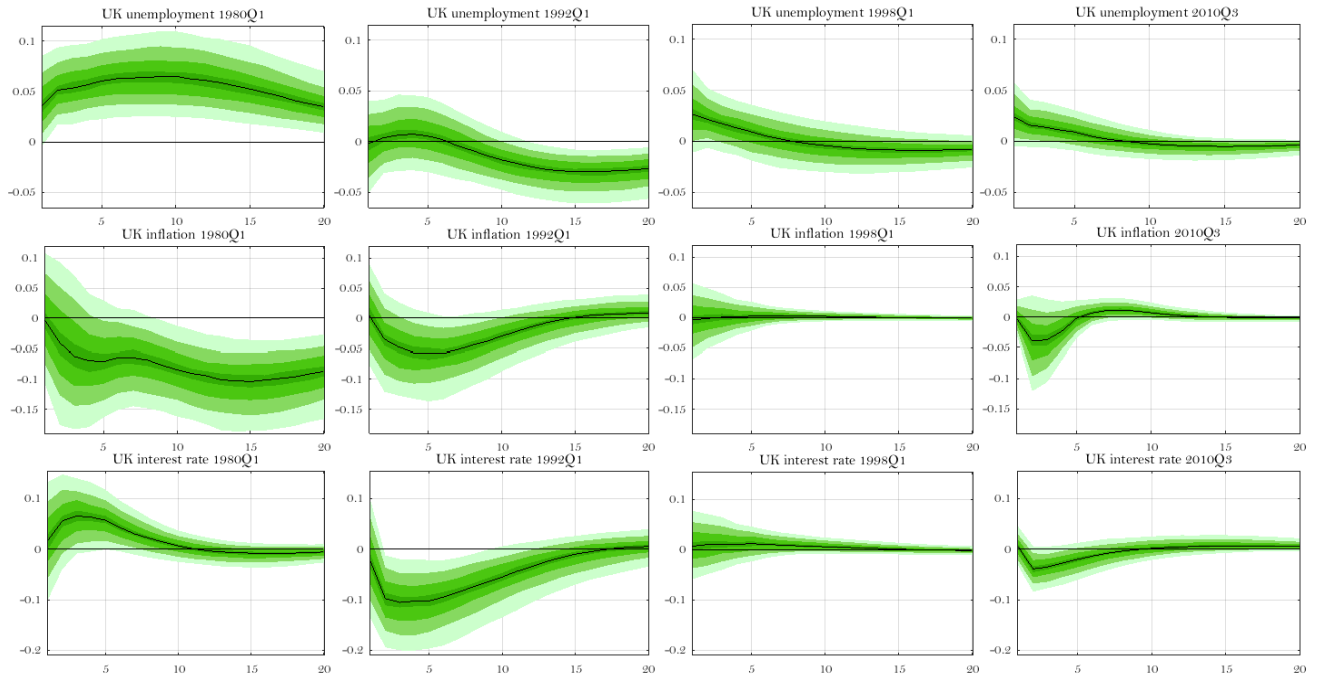Figure 13: Spillover effects US
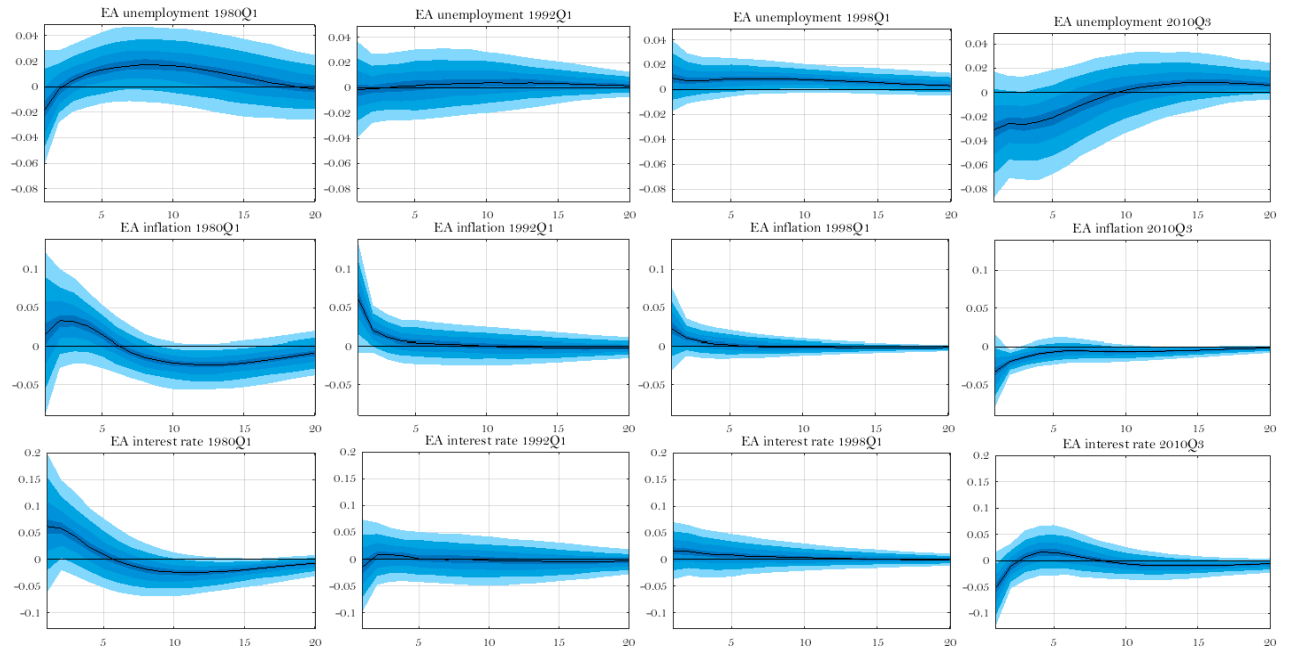
Figure 14: Spillover effects UK

US unemployment 1980Q1 | US unemployment 1992Q1 | US unemployment 1998Q1 | US unemployment 2010Q3

US inflation 1980Q1 | US inflation 1992Q1 | US inflation 1998Q1 | US inflation 2010Q3

US interest rate 1980Q1 | US interest rate 1992Q1 | US interest rate 1998Q1 | US interest rate 2010Q3
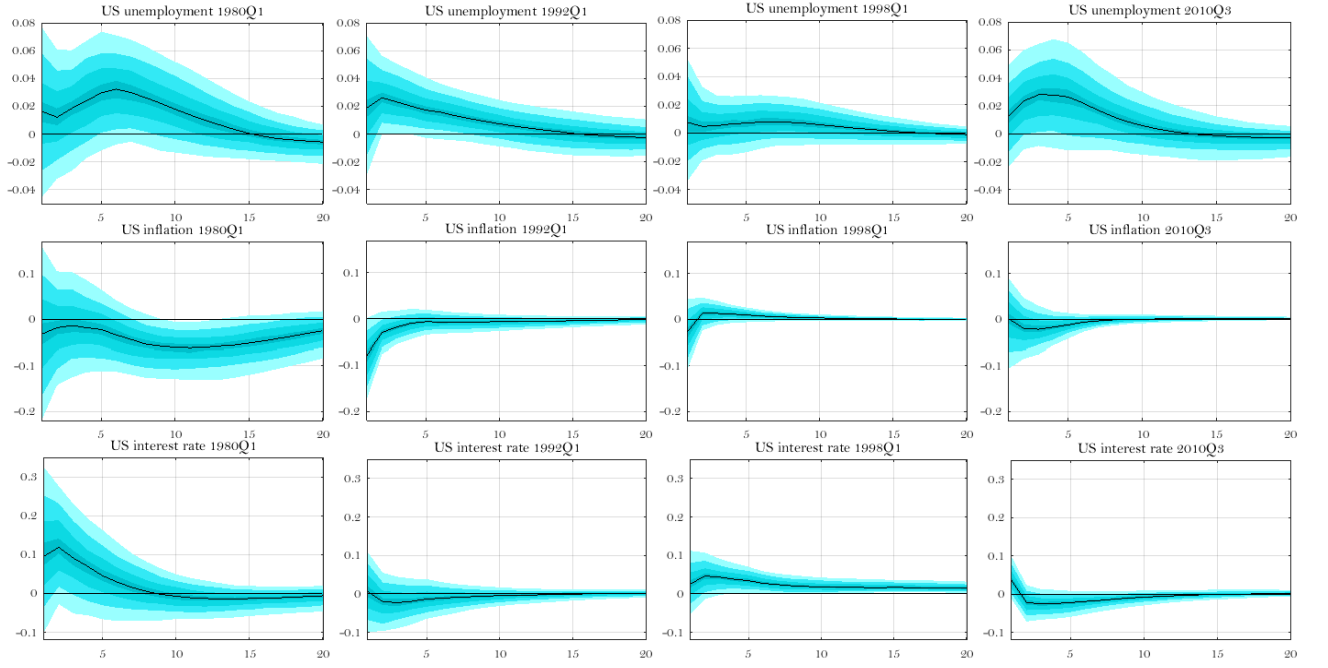
Figure 15: Spillover effects UK

EA unemployment 1980Q1 | EA unemployment 1992Q1 | EA unemployment 1998Q1 | EA unemployment 2010Q3

EA inflation 1980Q1 | EA inflation 1992Q1 | EA inflation 1998Q1 | EA inflation 2010Q3

EA interest rate 1980Q1 | EA interest rate 1992Q1 | EA interest rate 1998Q1 | EA interest rate 2010Q3

8

Figure 16: Spillover effects EA

Figure 17: Spillover effects EA

2 Robustness estimation results with German data

Figure 18: Actual series and their long-run trends (Germany)
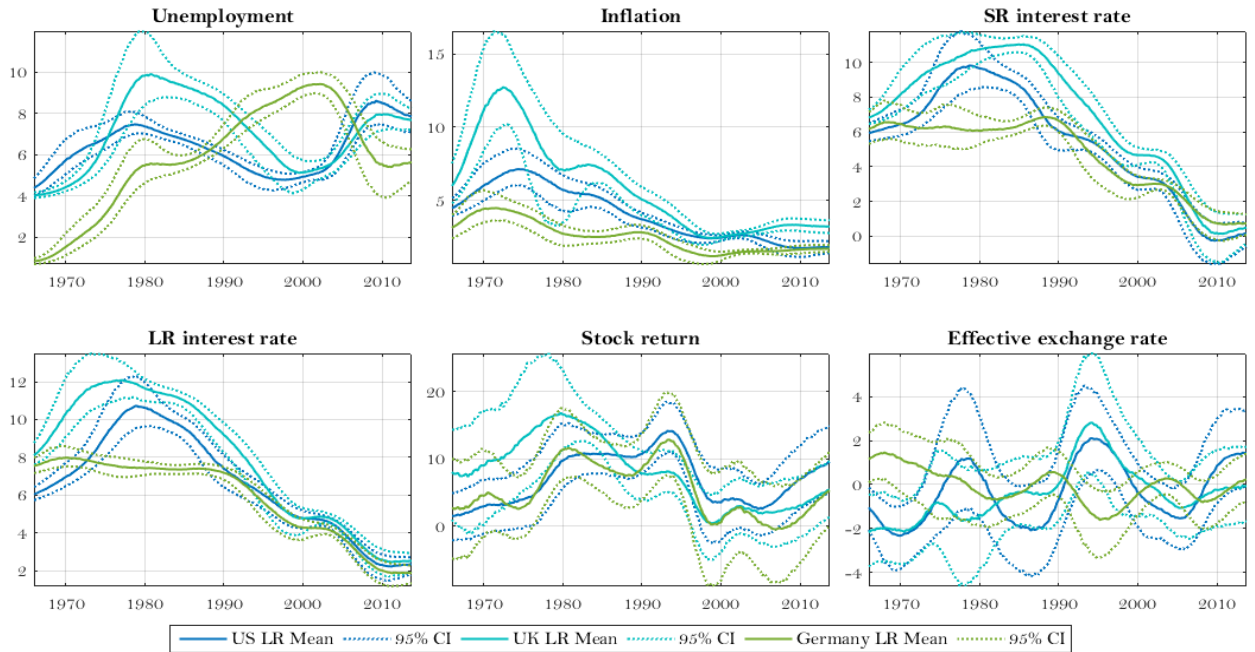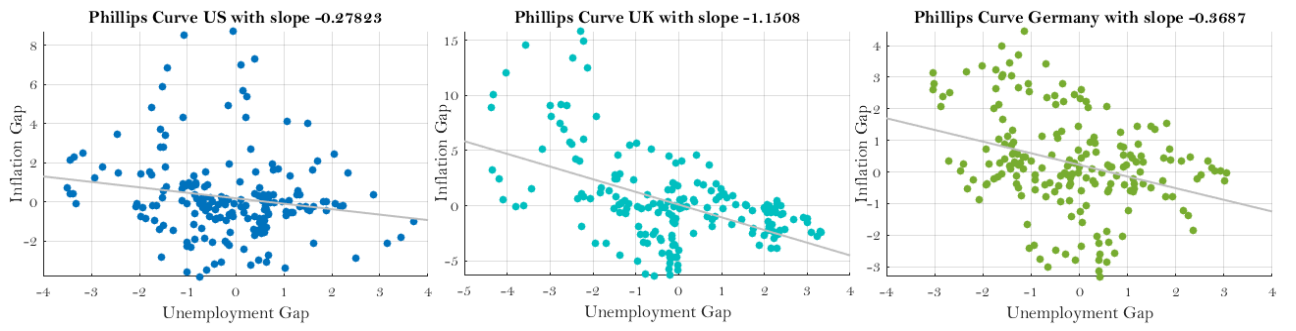

Figure 19: Long-run trends (Germany)

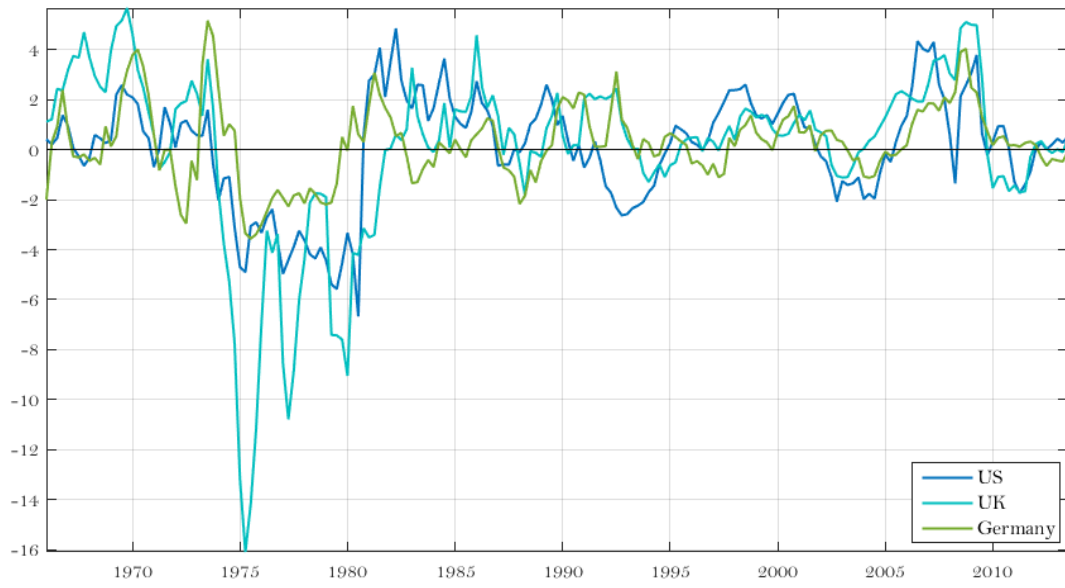Figure 20: Phillips Curves across countries (Germany)
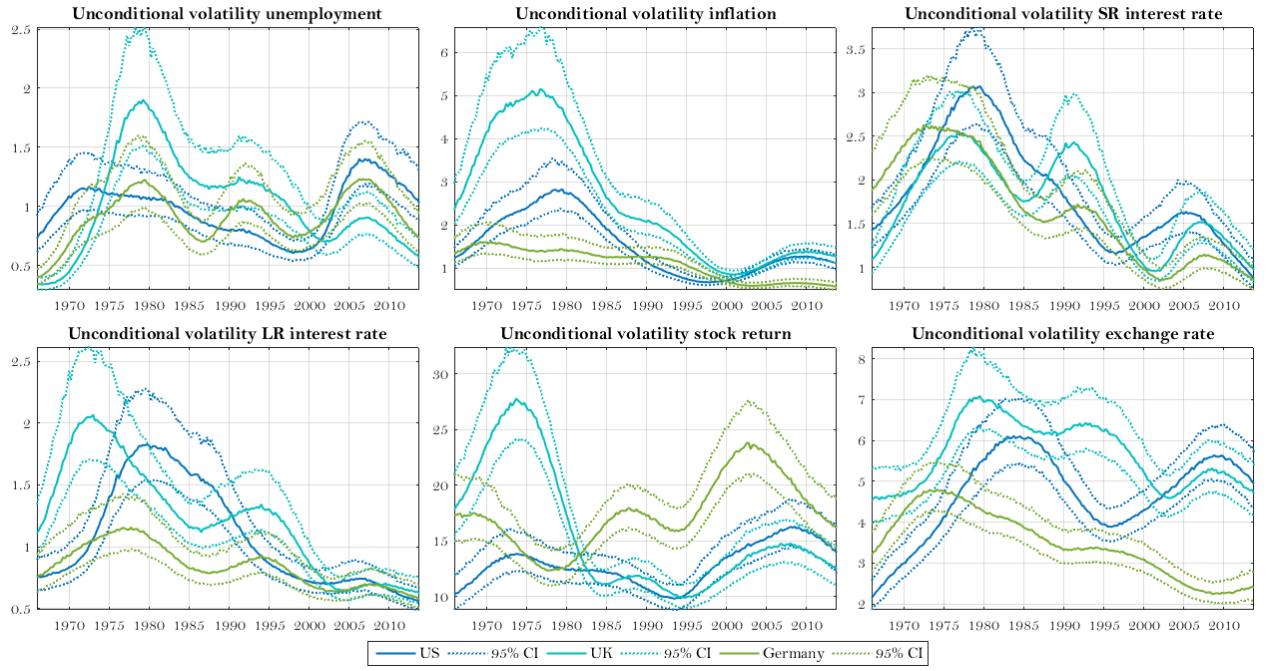

Figure 21: Interest rate gaps
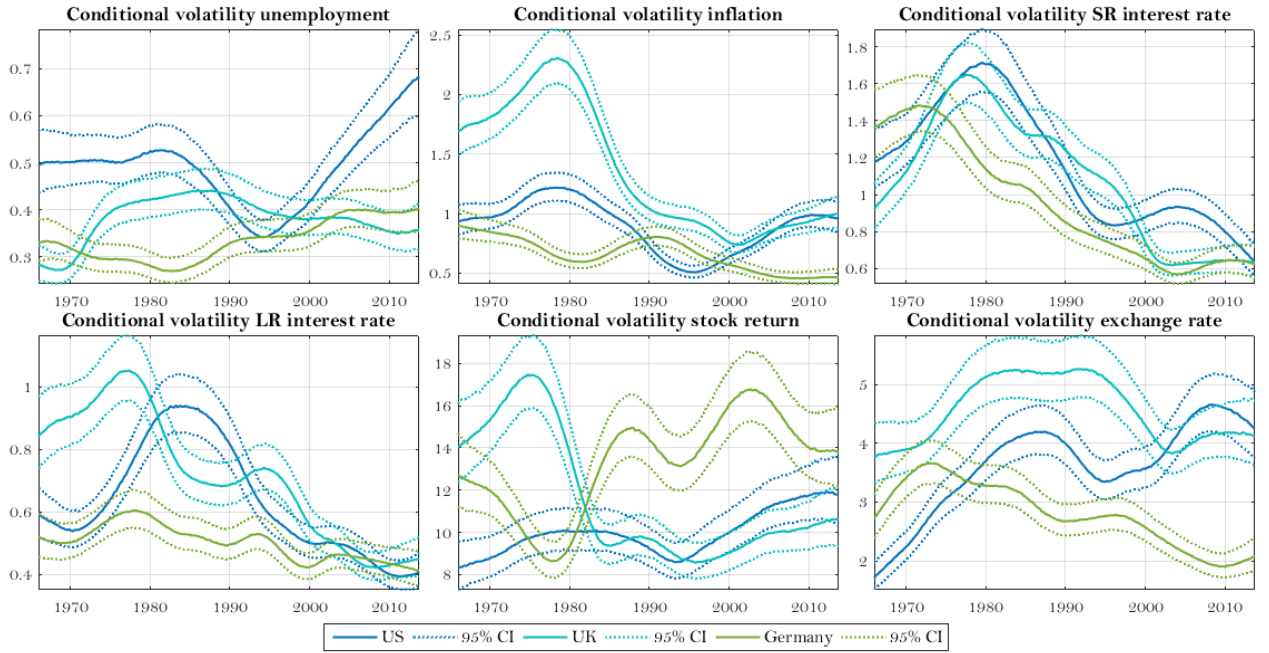
Figure 22: Unconditional volatility (Germany)
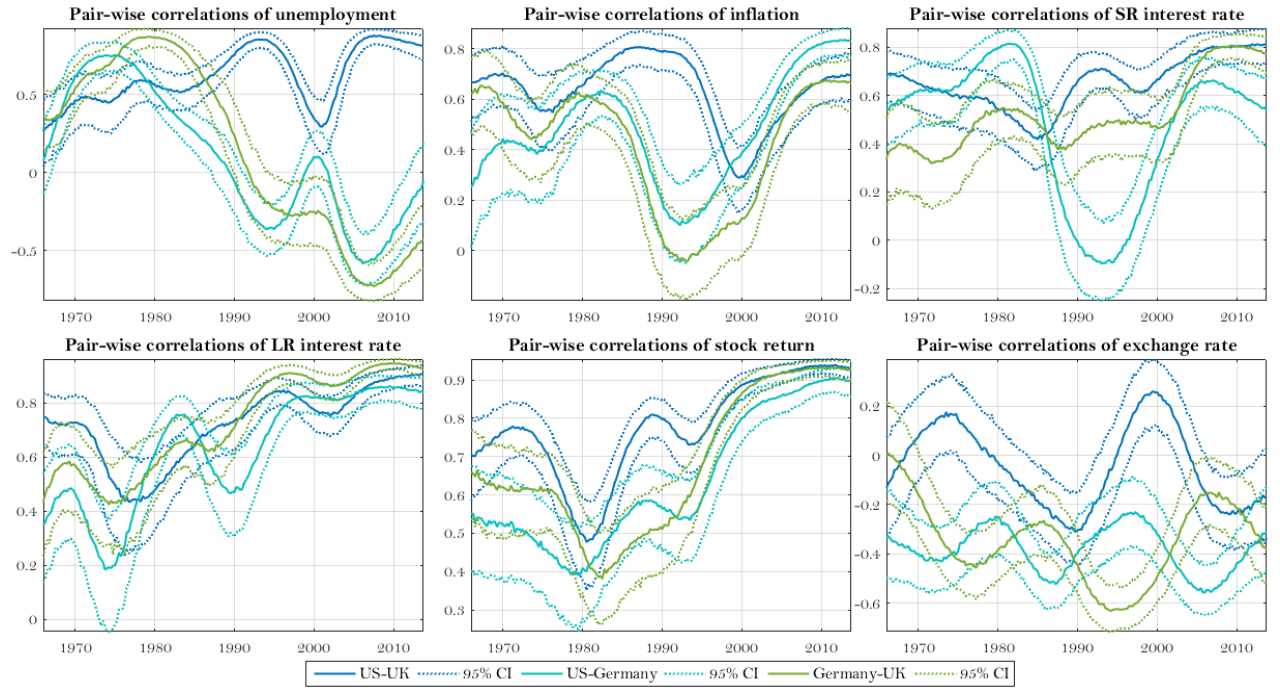

Figure 23: Conditional Volatility (Germany)

Figure 24: Pair-wise correlations (Germany)

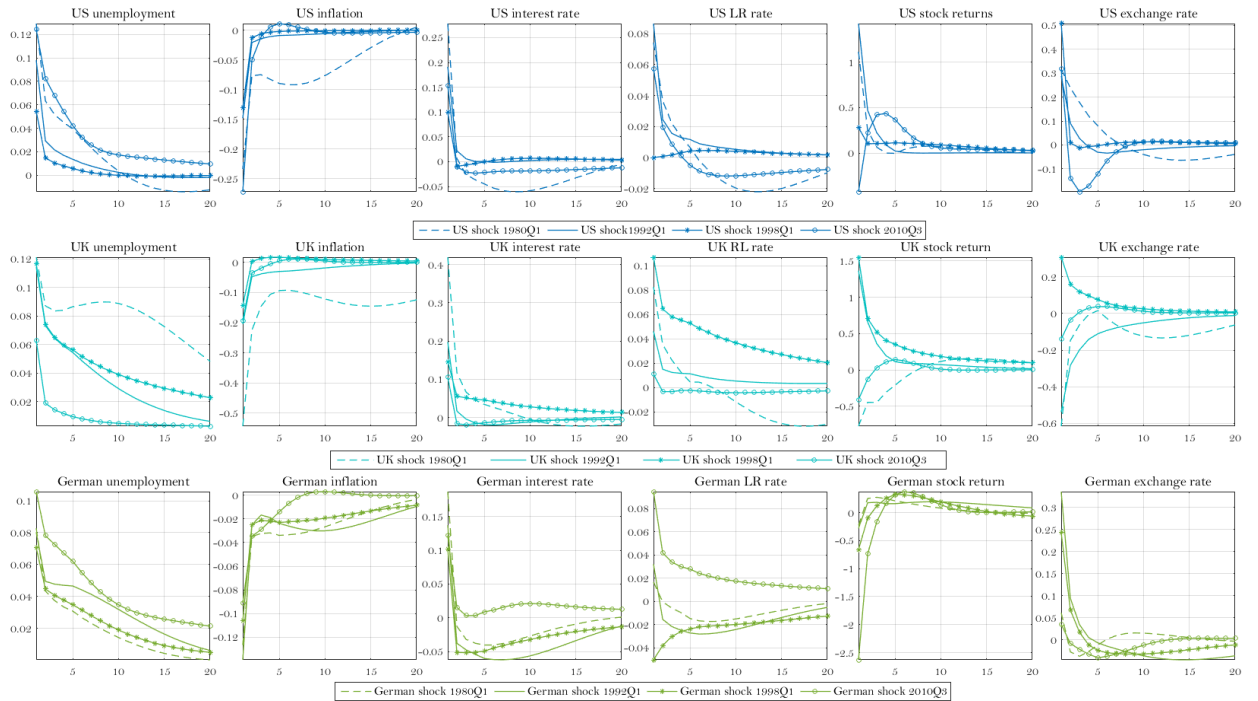## 2.1 Robustness structural shock analysis with German data

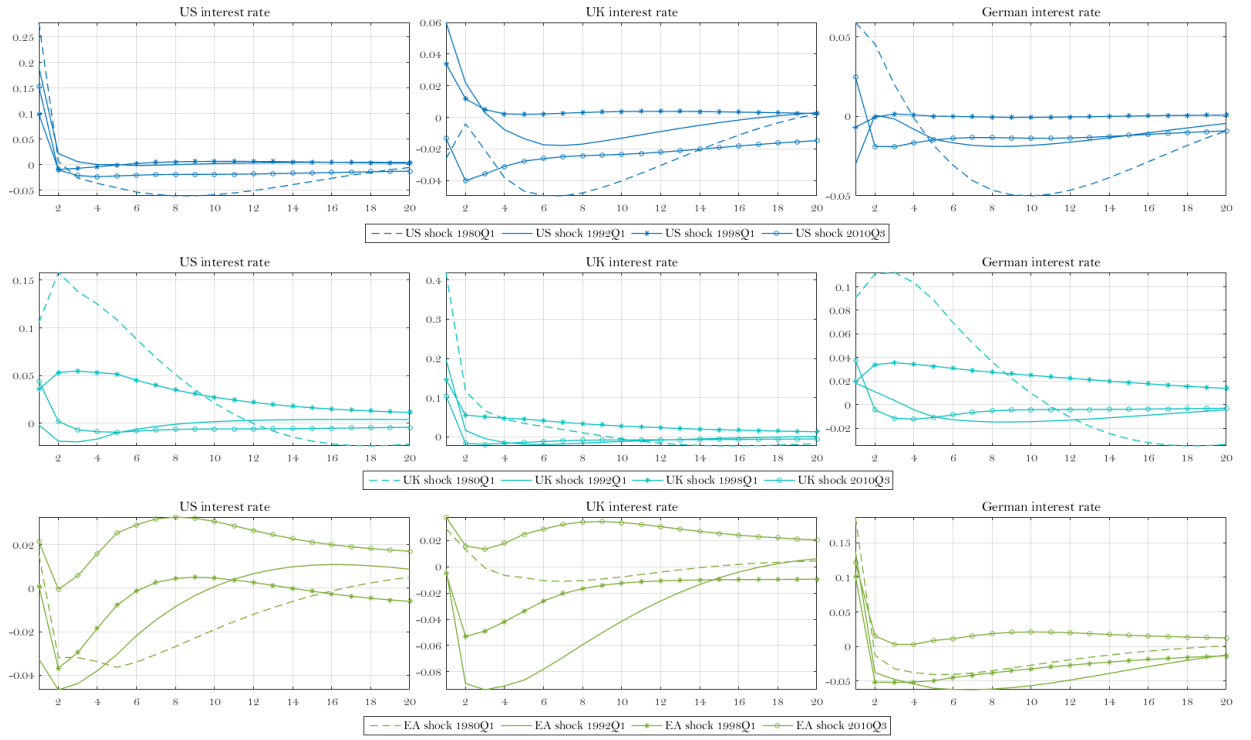Figure 25: Domestic Effects (Germany)
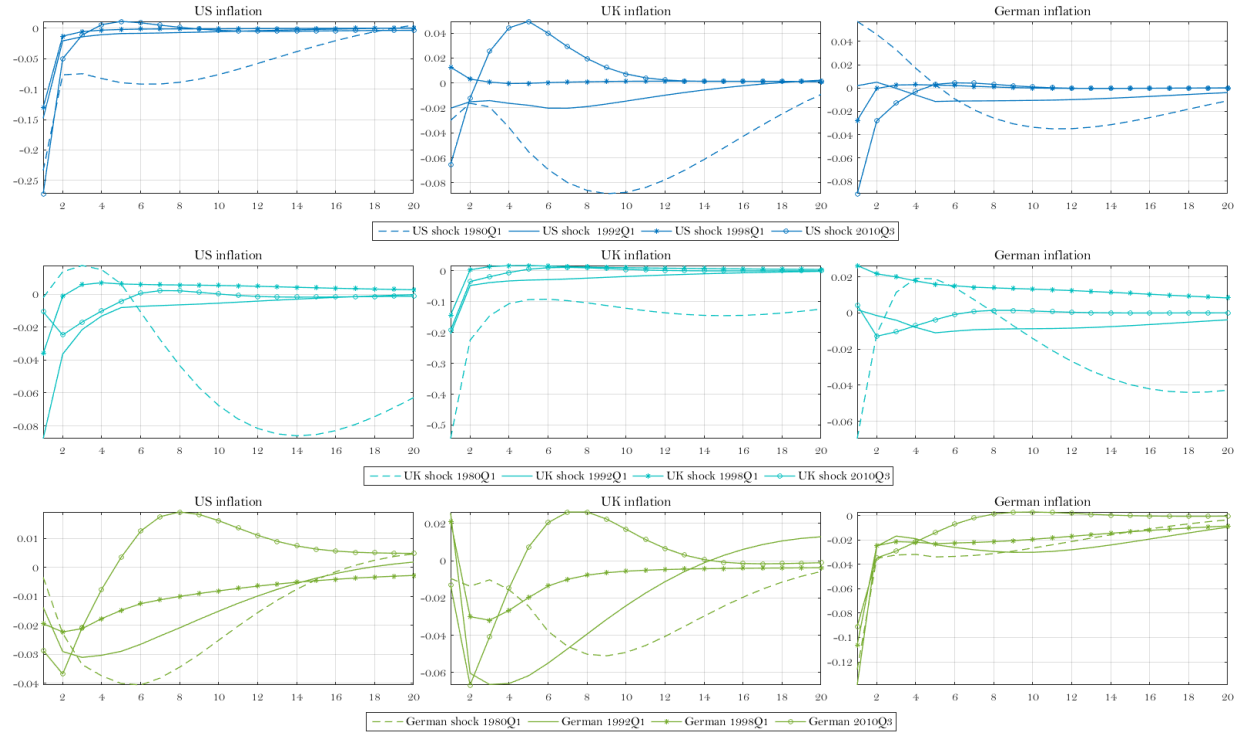
Figure 26: Interest rate spillover effects (Germany)
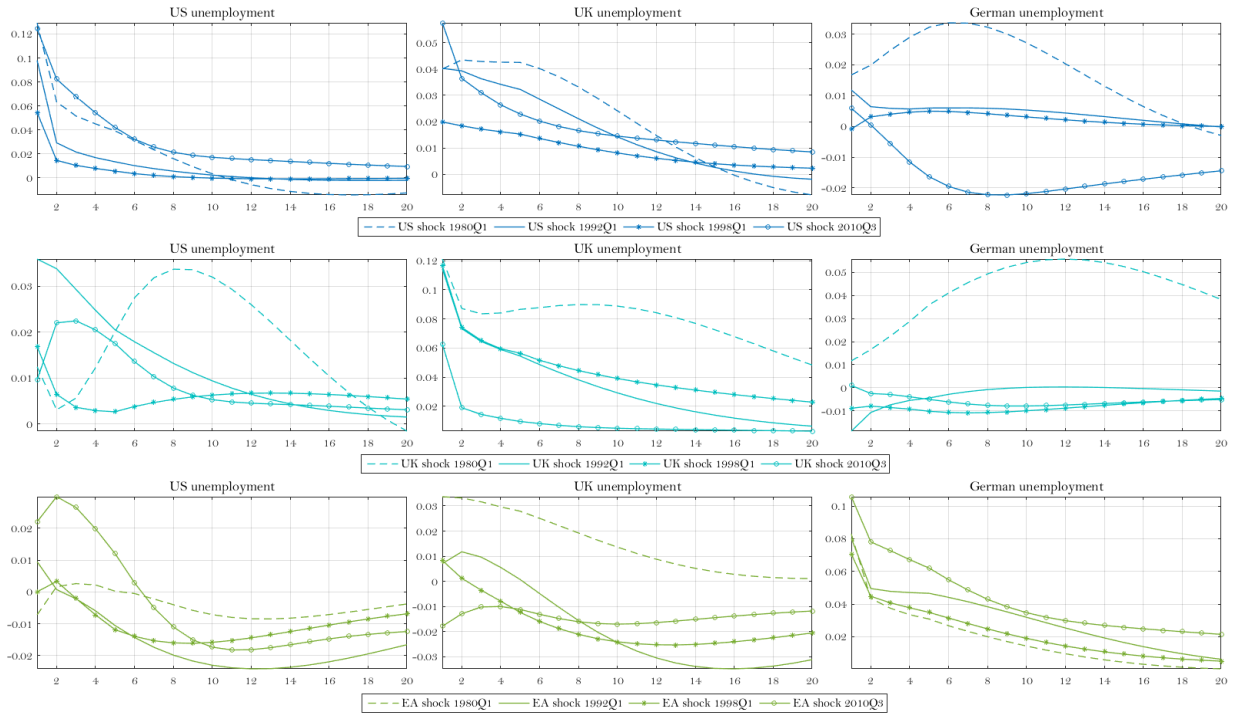

Figure 27: Inflation spillover effects (Germany)

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Figure 28: Unemployment spillover effects (Germany)