

COMPANION APPENDIX TO
The Government Wage Bill and Private Activity
(intended for online publication)

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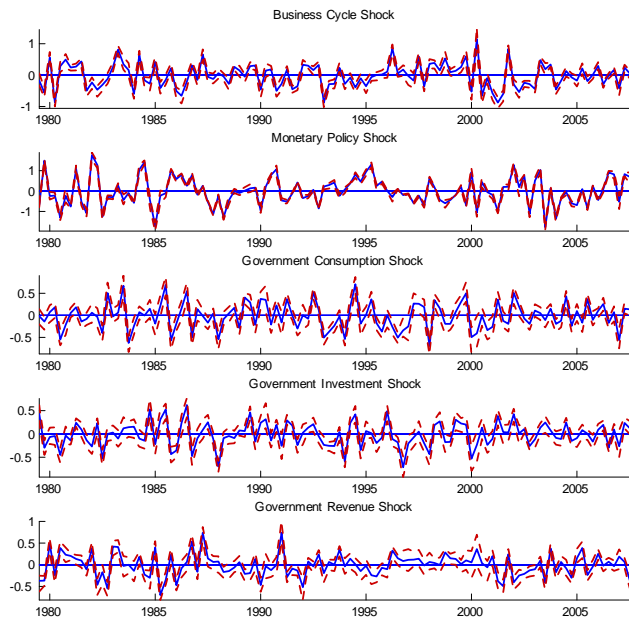
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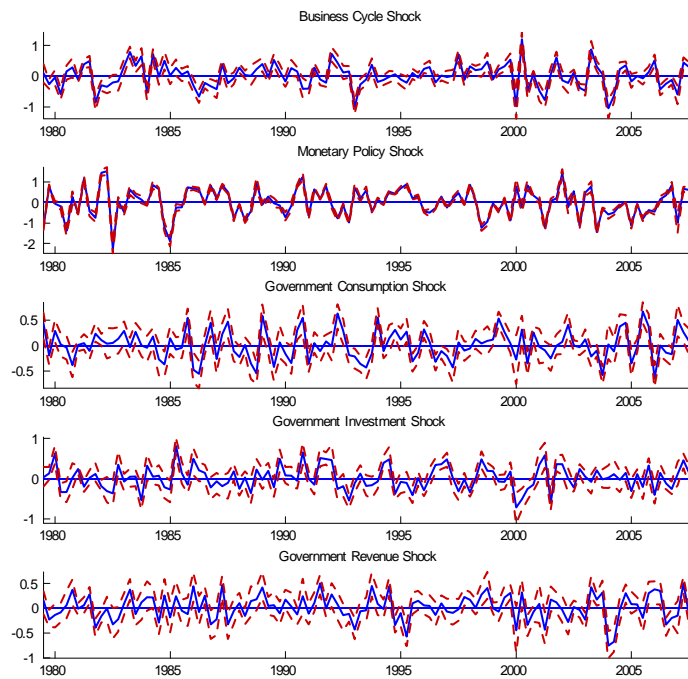
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A VAR analysis

A.1 Other identified shocks in the VAR



(a) Federal Government



(b) S&L Governments

Figure A1: Other identified shocks in the VAR

A.2 Responses to aggregate government shocks

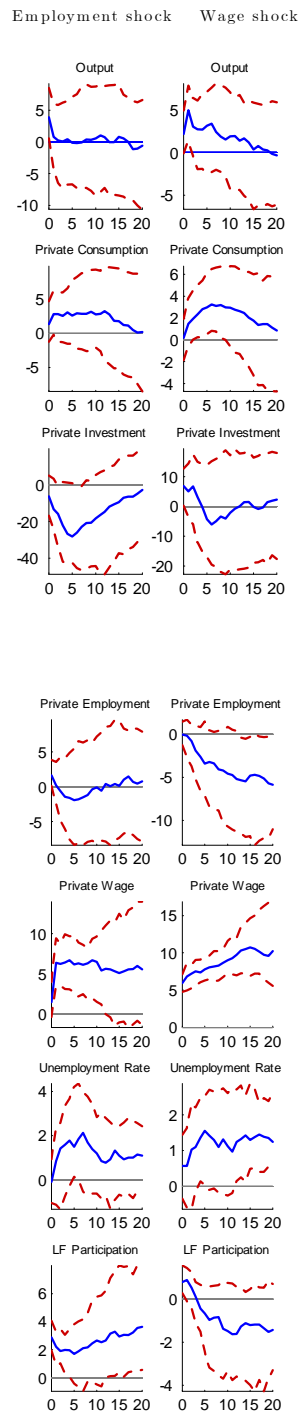


Figure A2: Impulse responses to total government employment and wage shocks

Employment shock Wage shock

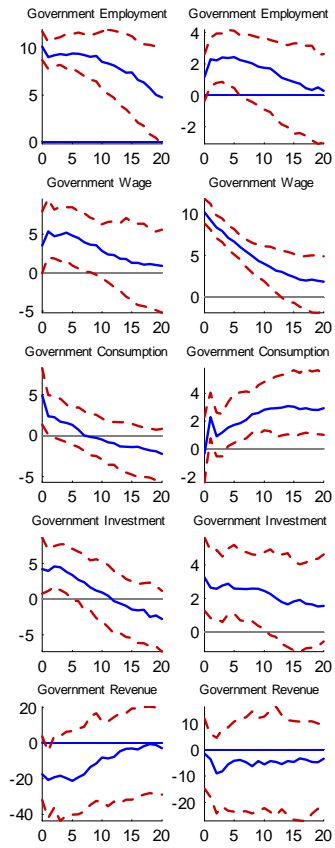


Figure A2 (cont'd)

A.3 Responses to the other shocks in the VAR

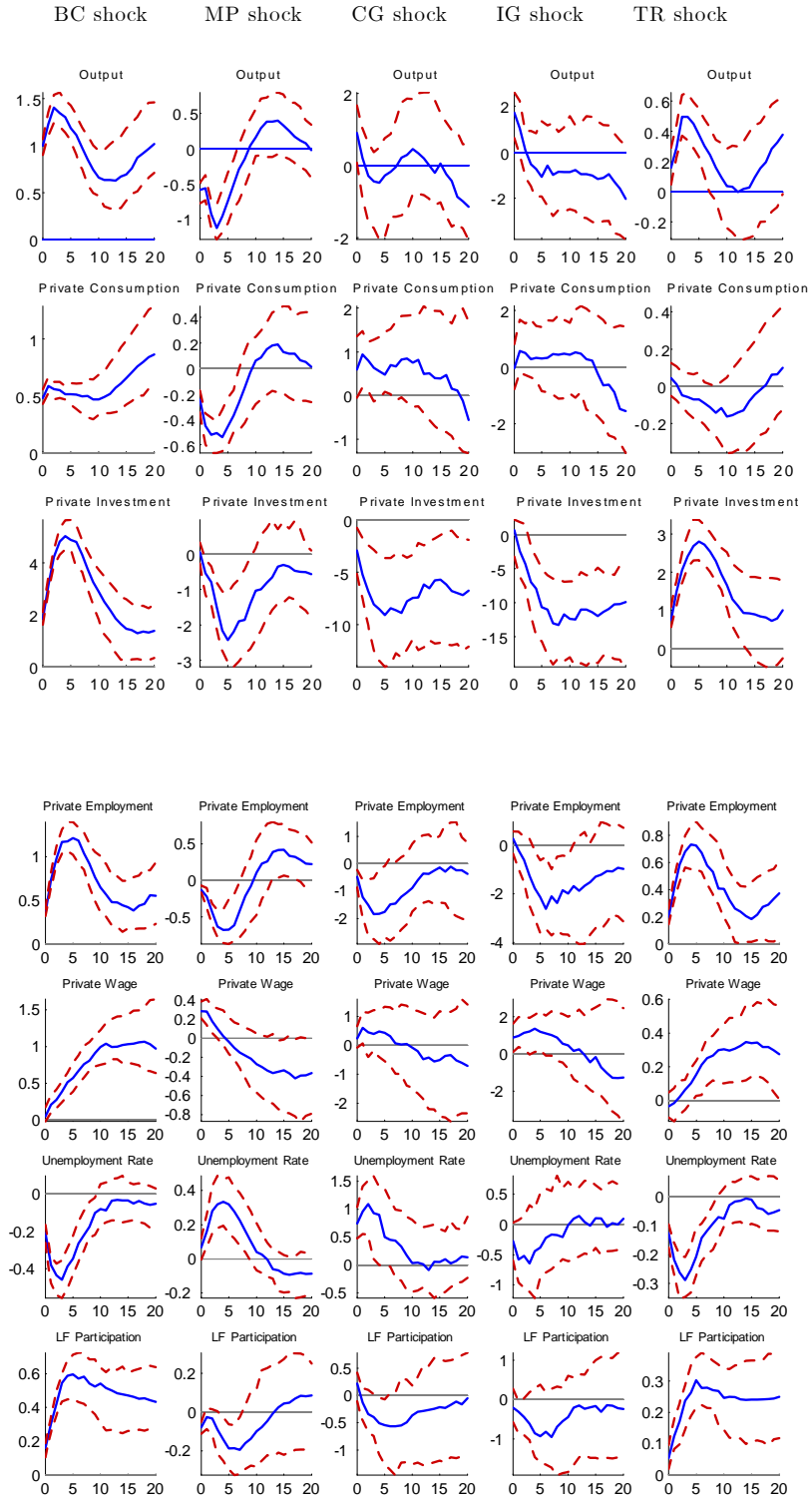


Figure A3.1: Impulse responses to the other shocks in the VAR (federal government level)
 Notes: BC: business cycle; MP: monetary policy; CG: government consumption;
 IG: government investment; TR: tax revenues

BC shock MP shock CG shock IG shock TR shock

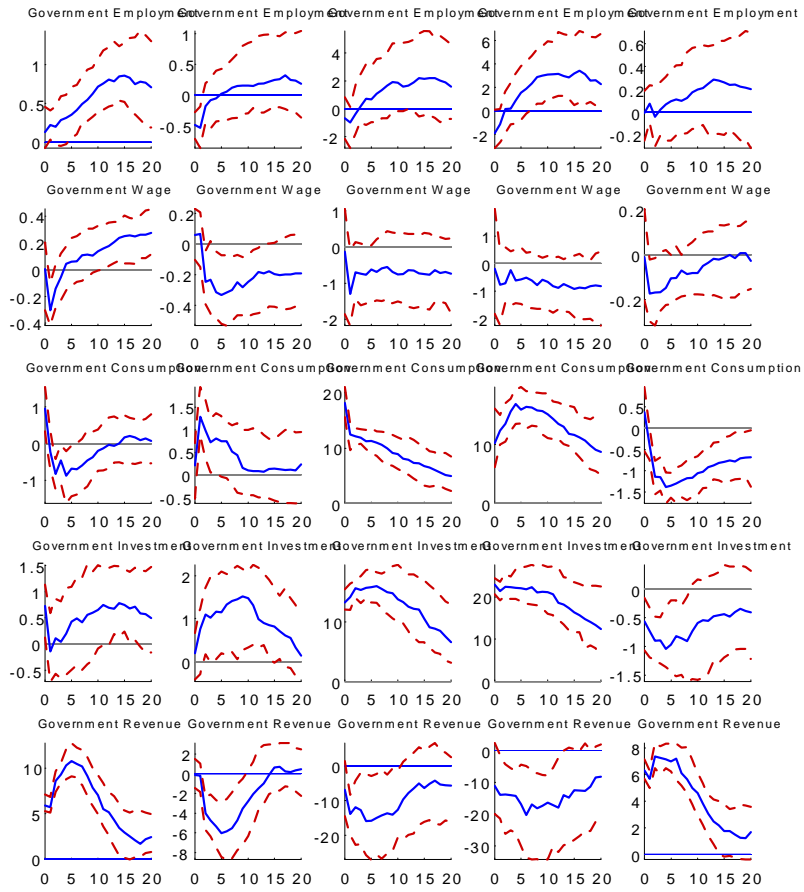


Figure A3.1 (cont'd)

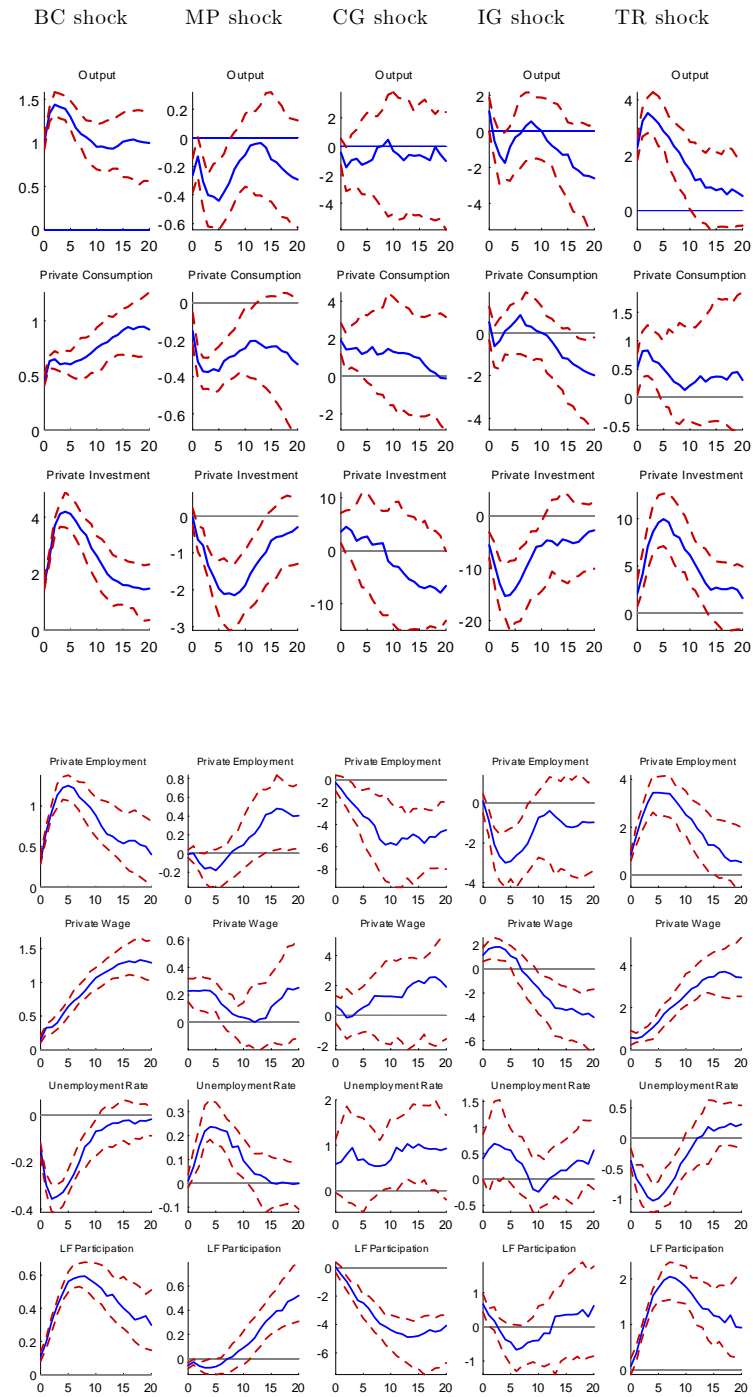


Figure A3.2: Impulse responses to the other shocks in the VAR (S&L government level)
Notes: See Figure A3.1

BC shock MP shock CG shock IG shock TR shock

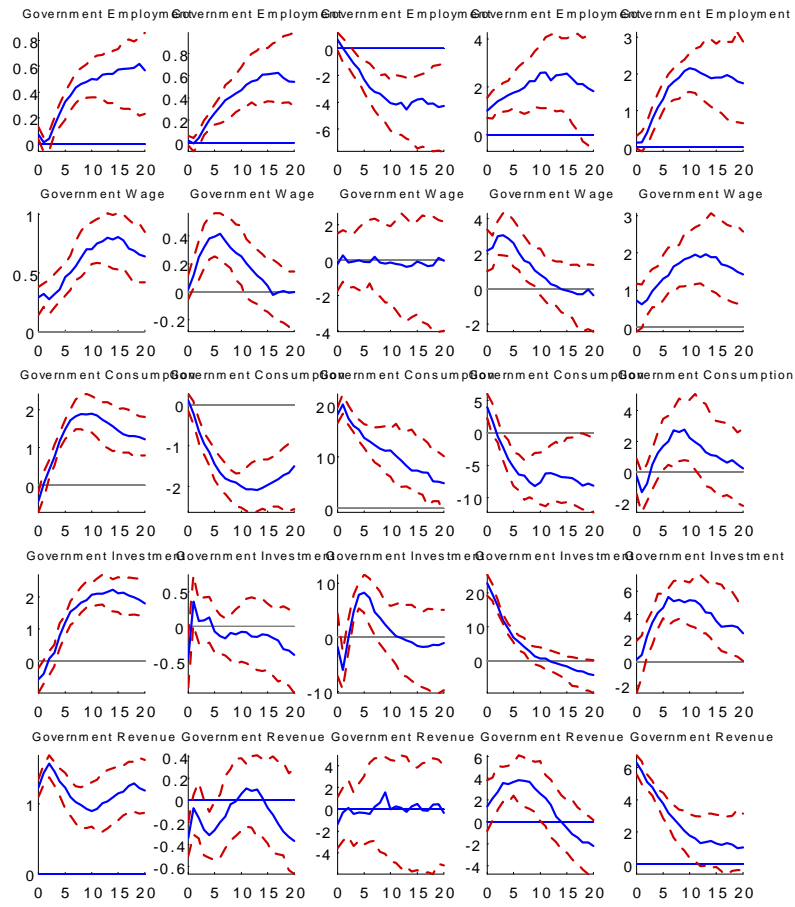
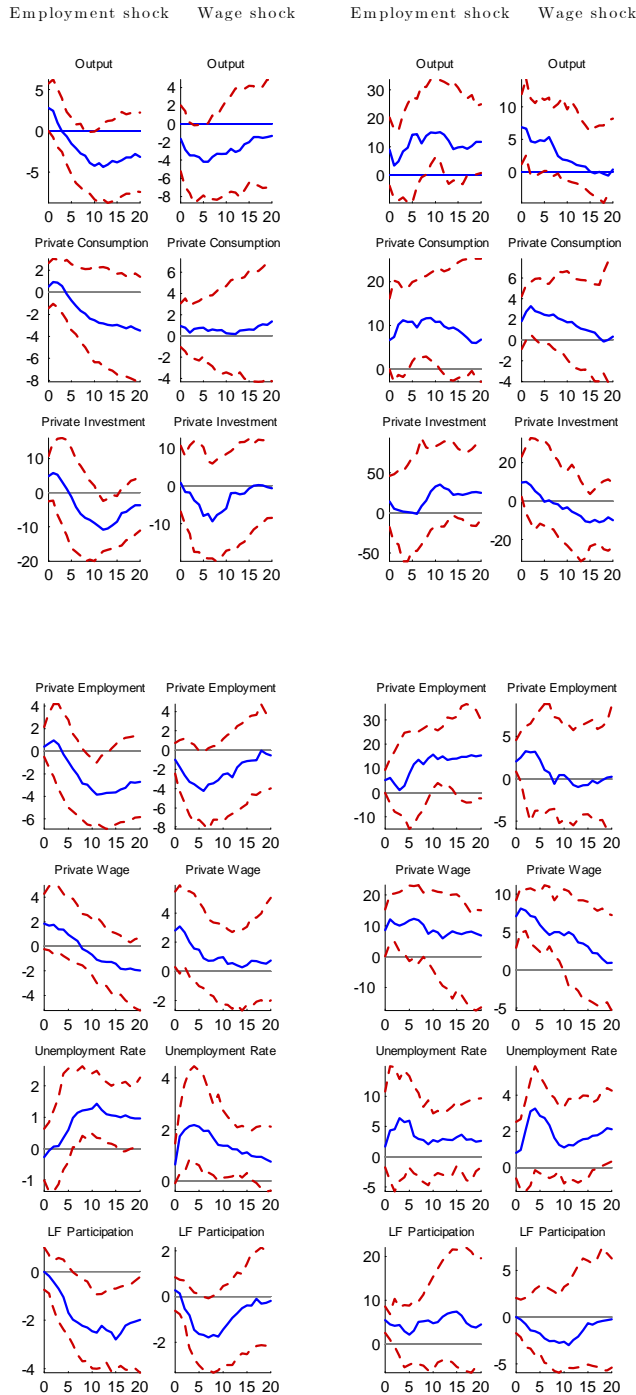


Figure A3.2 (cont'd)

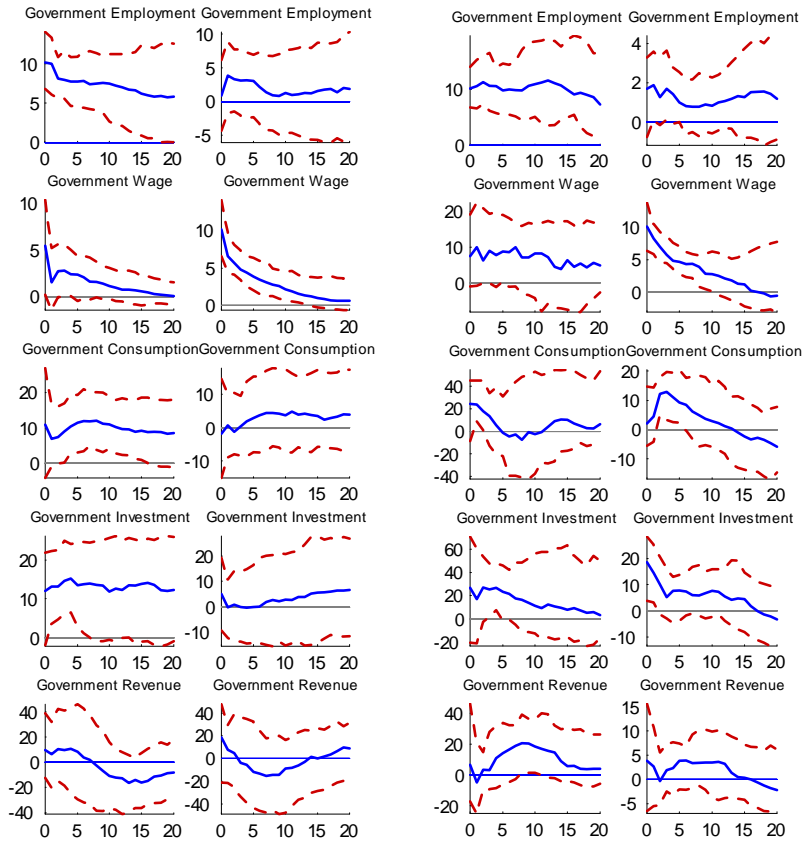
A.4 Responses from a VAR with a constant and a quadratic trend



(a) Federal Government (b) S&L Governments
 Figure A4: Impulse responses to government employment and wage shocks

Employment shock Wage shock

Employment shock Wage shock

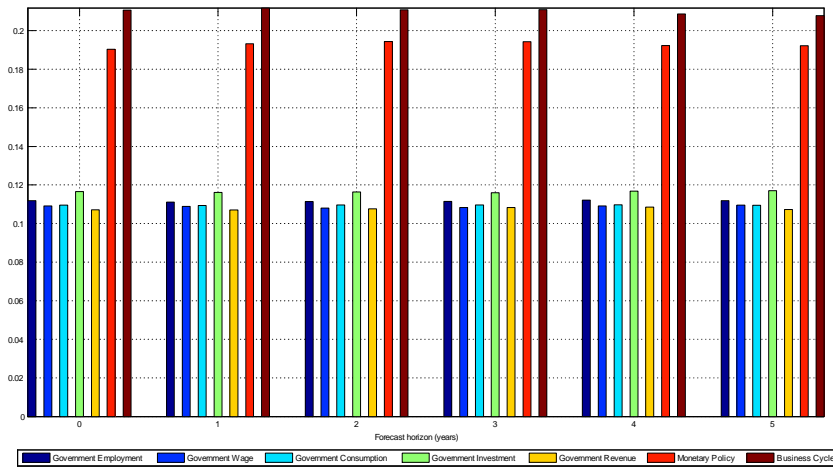


(a) Federal Government

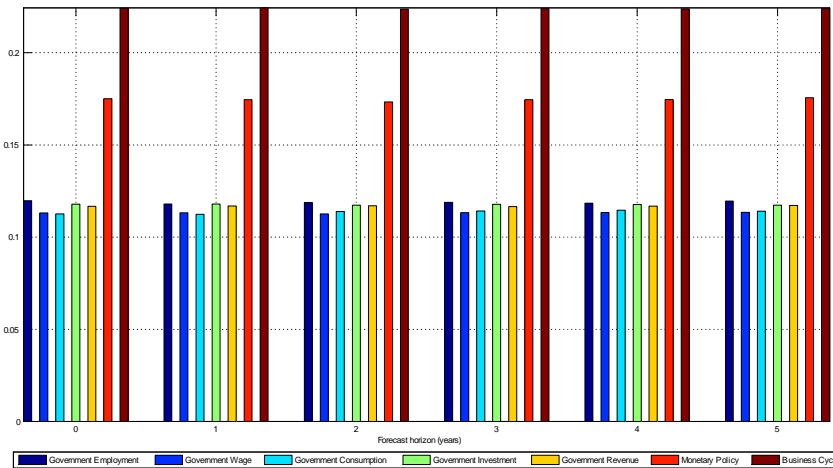
(b) S&L Governments

Figure A4 (cont'd)

A.5 Forecast error variance decomposition

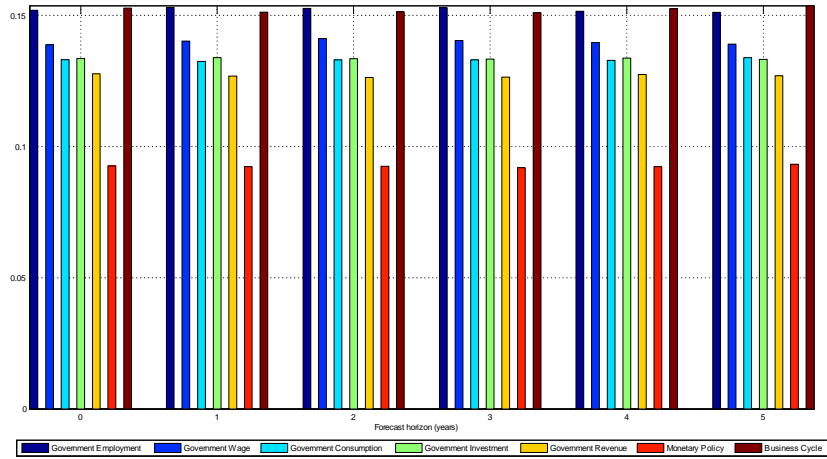


(a) Federal Government

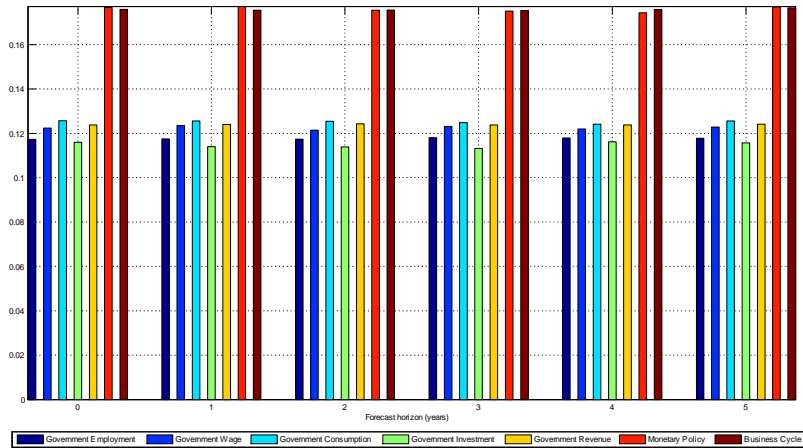


(b) S&L Governments

Figure A5.1: Forecast error variance decomposition of private output



(a) Federal Government



(b) S&L Governments

Figure A5.2: Forecast error variance decomposition of government wage bill

B Theoretical responses to the other shocks

B.1 A shock to public consumption spending

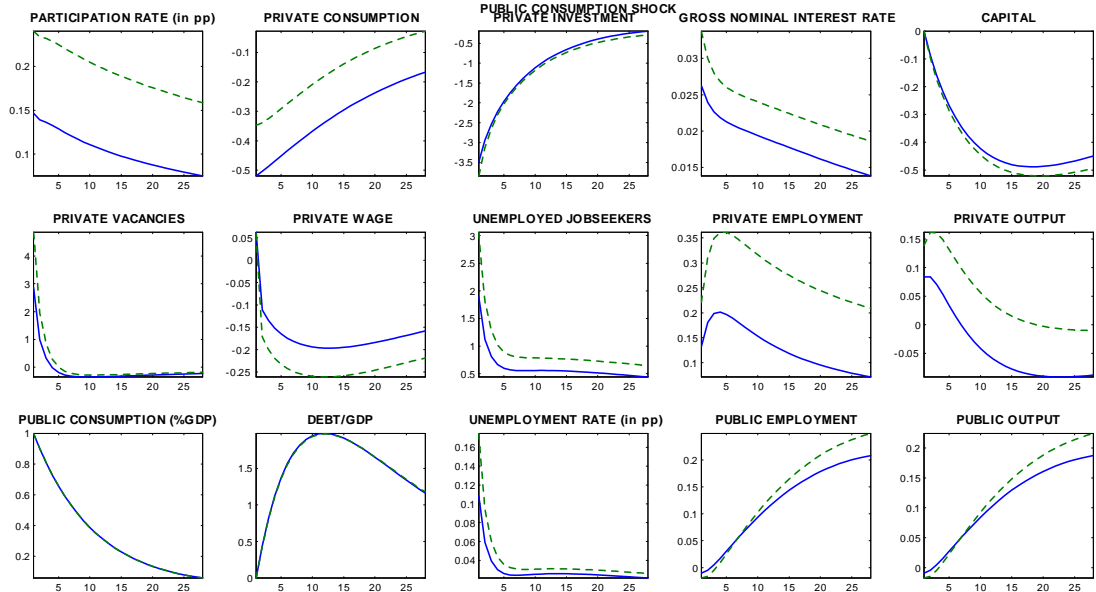


Figure B1: Theoretical impulse responses to a rise in public consumption equal to 1% of GDP (solid lines: benchmark calibration, dashed lines: higher degree of complementarity)

The increase in public consumption spending boosts demand for output in the private sector. As a result, there is a rise in vacancy posting and in labor force participation. Employment increases and wages drop in the private sector. Public employment and public output also rise, given that the latter is a factor of production for the private good. The unemployment rate rises because of the increase in the labor force participation. As a result of the wealth effect of the shock for the household, private investment and private consumption fall. The magnitude of the response of the latter depends on the complementarity degree with the public good.

B.2 A monetary policy shock

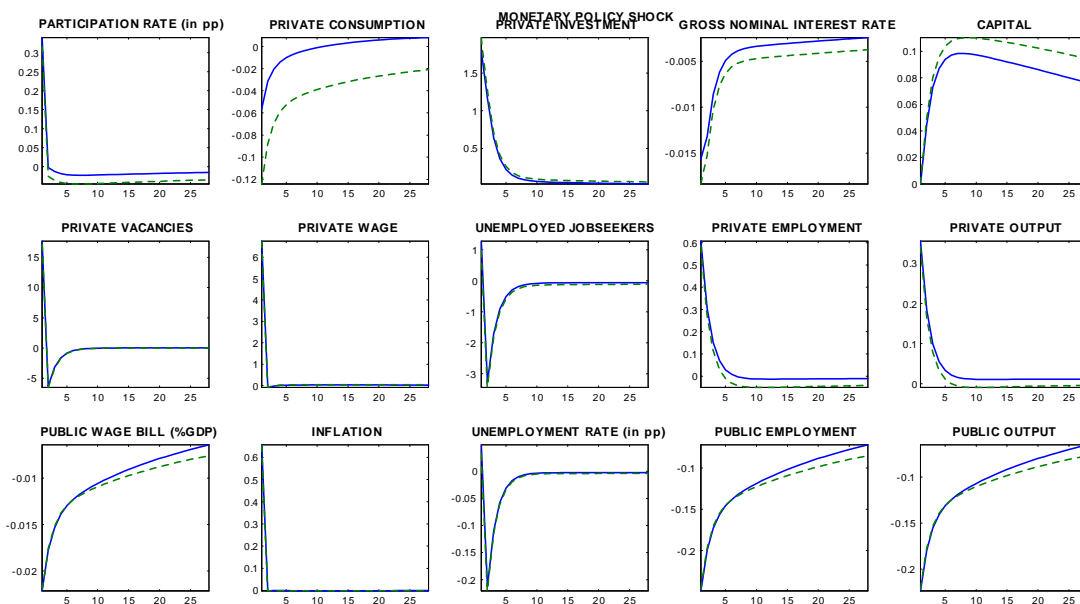


Figure B2: Theoretical impulse responses to a 1% decrease in gross nominal interest rate (solid lines: benchmark calibration, dashed lines: higher degree of complementarity)

As expected after a negative shock to the nominal interest rate, private investment rises, which boosts capital accumulation and output production in the private sector. Private sector vacancies and employment increase, and the unemployment rate decreases. Given that public vacancies are exogenous and unemployed jobseekers now are being absorbed faster in the private sector, public employment and public output decrease. Private consumption decreases, given the complementarity with the public good, and labor force participation increases on impact, given the increase in private sector hiring. A higher degree of complementarity between the private and the public good implies that private consumption falls by more given that the public good decreases too.

B.3 A business cycle shock

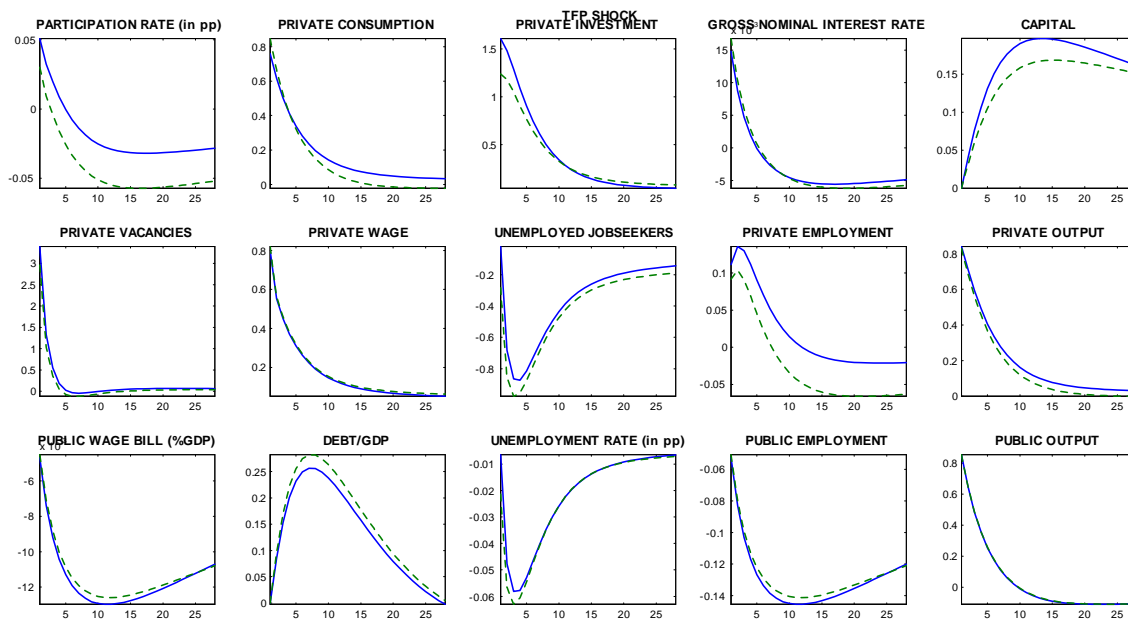


Figure B3: Theoretical impulse responses to a 1% rise in TFP
(solid lines: benchmark calibration, dashed lines: higher degree of complementarity)

A TFP shock increases both private and public sector output in the economy. Private vacancies and employment increase, while the unemployment rate falls. Public employment falls, since public vacancies are exogenous. As a result, after a few periods, the public good production also decreases, as the positive effect of the shock fades out. Private consumption increases given the complementarity with the public good, which has also increased due to the TFP shock. Labor market participation initially increases, but falls the subsequent period, given the short-lived impact of the shock. A higher degree of complementarity between the private and the public good implies that private consumption will start falling once the public good starts decreasing. This has a negative impact on private employment and labor force participation.