Monetary Economics

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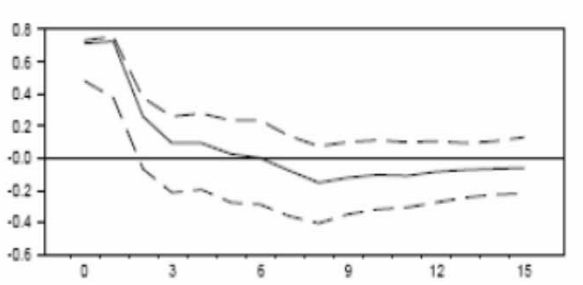
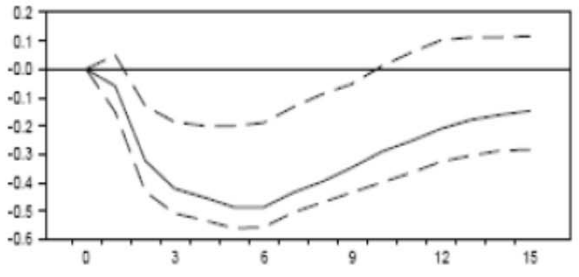
Response to a MP shock (CEE)

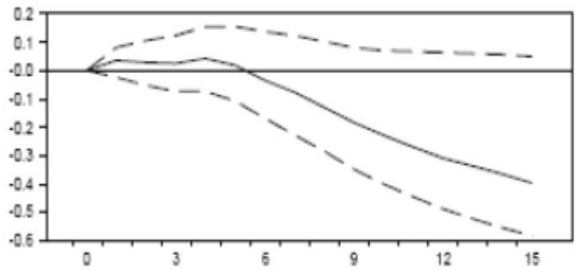
Figure 1. Estimated Dynamic Response to a Monetary Policy Shock



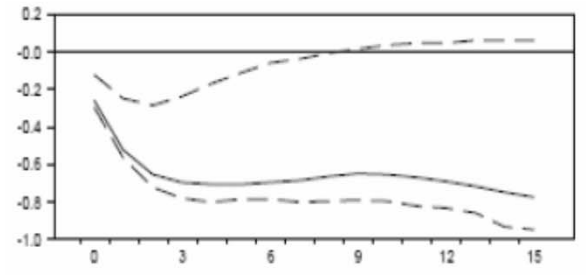
Federal funds rate



GDP

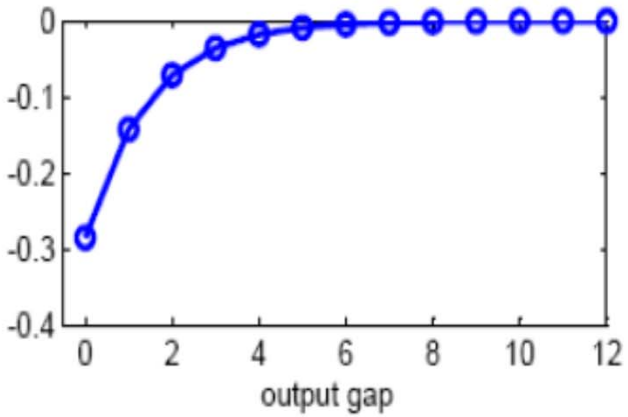


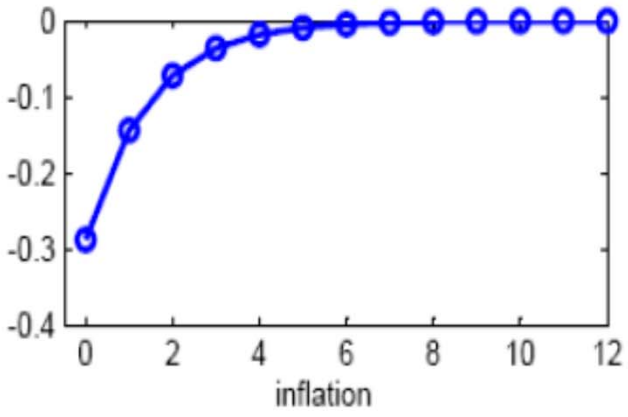
GDP deflator

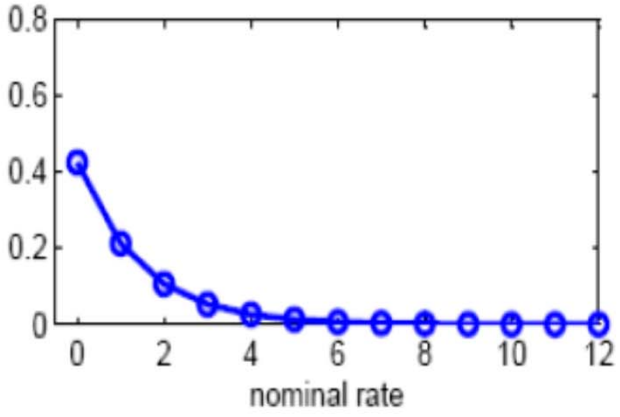


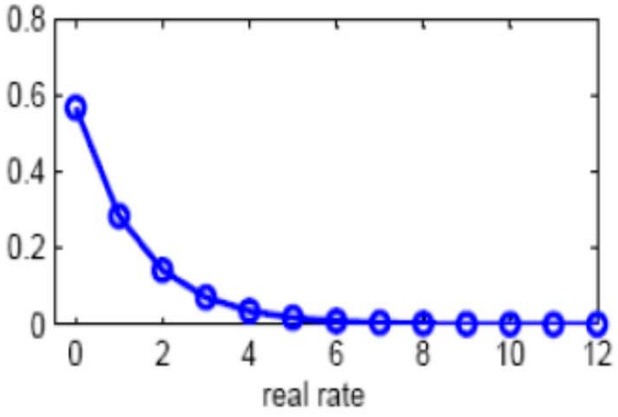
M2

NK Model: Effect of a MP Shock

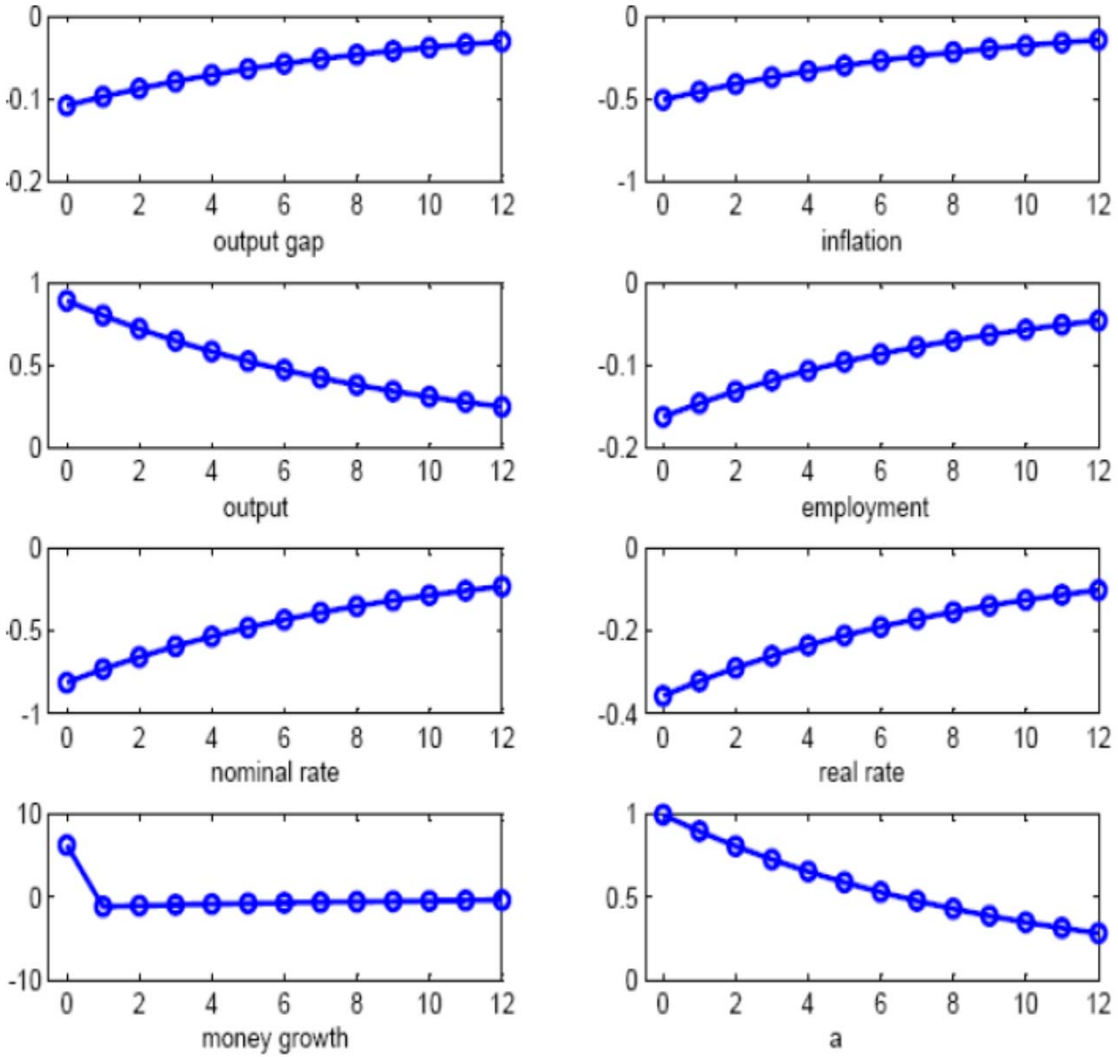








NK Model: Effect of a Technology Shock



Rudd & Whelan AER

Figure 1
Fit of New-Keynesian Phillips Curve

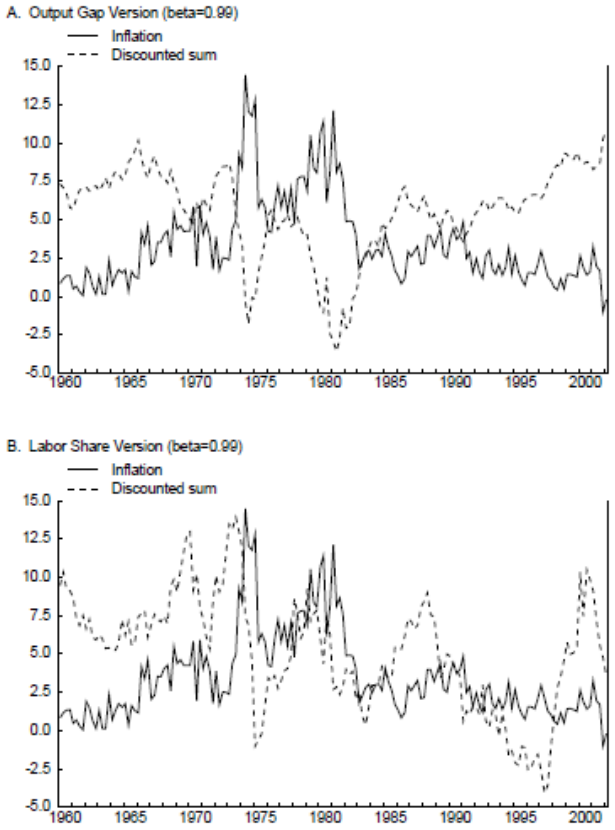
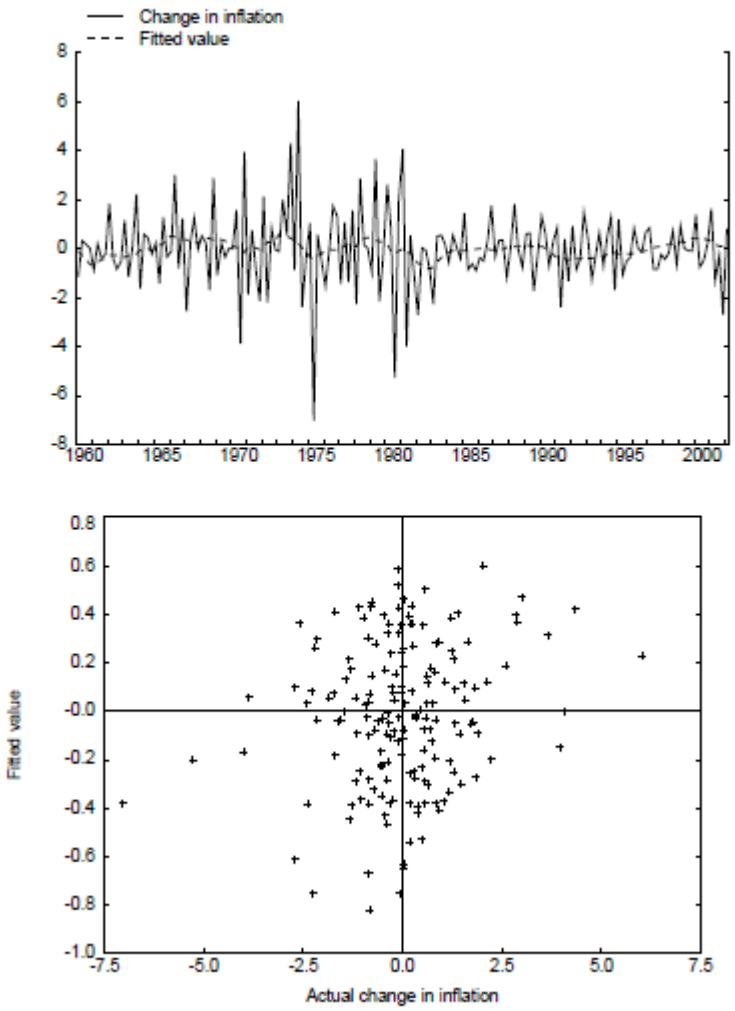


Figure 2
Fit from Regressing Change in Inflation on Detrended Output



- Can the New Keynesian model match impulse responses from a VAR?

- Monetary Policy Shocks

Giannoni & Woodford 2004

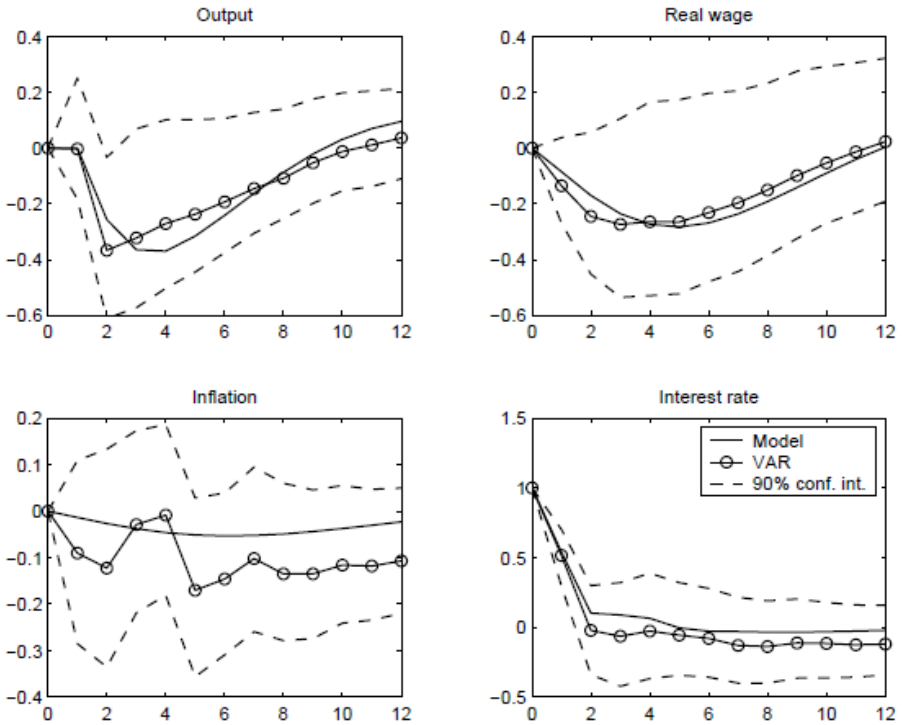


Figure 6: Estimated and predicted impulse responses to a monetary policy shock.

	Baseline	No habit $\eta = 0$	No indexation $\gamma_p = \gamma_w = 0$	Flexible wages $\xi_w^{-1} = 0$
Estimated parameters				
$\psi \equiv \frac{\varphi^{-1}}{1+\beta\eta^2}$	0.6715	4.3144	1.5026	0.7564
	(0.3330)	(1.0253)	(0.4221)	(0.2823)
$\tilde{\eta} \equiv \frac{\eta}{1+\beta\eta^2}$	0.5025	0	0.5025	0.5025
	(0.0692)*	(—)	(0.1121)*	(0.0515)*
ξ_p	0.0020	0.0015	0.0072	0.0015
	(0.0009)	(0.0005)	(0.0039)	(0.0012)
ξ_w	0.0042	0.0042	0.0046	$+\infty$
	(0.1343)	(0.0612)	(0.0310)	(—)
ω_w	19.551	19.991	19.072	0.5642
	(595.1)	(269.5)	(122.6)	(0.1253)
γ_p	1	1	0	1
	(0.3800)*	(0.3484)*	(—)	(0.5374)*
γ_w	1	1	0	0
	(10.908)*	(12.4613)*	(—)	(—)
Implied parameters				
φ	0.7483	0.2318	0.3344	0.6643
η	1	0	1	1
$\kappa_p \equiv \xi_p \omega_p$	0.0007	0.0005	0.0024	0.0004
$\omega \equiv \omega_p + \omega_w$	19.884	20.325	19.405	0.8975
$\nu \equiv \omega_w / \phi$	14.663	14.994	14.304	0.4231
$\mu_p \equiv \frac{\theta_p}{\theta_p - 1}$	1.0039	1.0027	1.0143	1.0029
$\mu_w \equiv \frac{\theta_w}{\theta_w - 1}$	1.5361	1.5731	1.6113	—
Objective function value	13.110	15.886	16.580	18.837
Wald test (p-value)	—	0.000	0.000	0.000

Table 3: Estimated structural parameters for the baseline case and restricted models.

- Technology Shocks

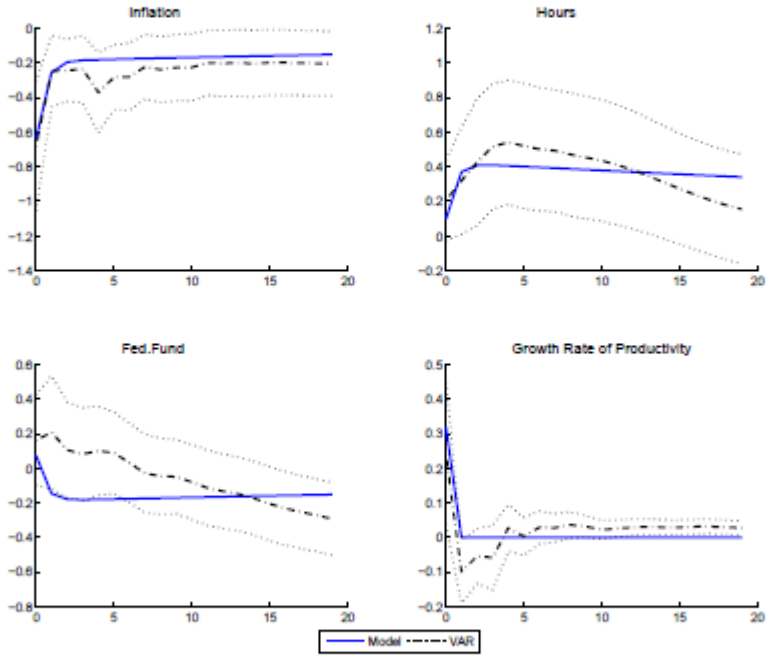
Dupor-Han-Tsai

Table 1: Parameter estimates from economic model, benchmark case

		DSGE estimation is based on :	
		Technology Shock (Benchmark)	**Monetary policy shock**
Parameter	**Meaning**		
ν	share of non-	0.388	0.916
	optimized prices	(0.034)	(0.003)
γ	degree of price	0.000	1
	indexation	(0.001)	(0.001)
κ	habit	-0.007	0.790
	persistence	(0.0003)	(0.017)
δ	depreciation rate of	(0.001)	(0.147)
	habit/durable stock	(0.0003)	(0.021)
d	share of borrowed	0.000	0.013
	wage bill	(0.0005)	(0.003)
ϕ_π	response to inflation	2.347	1.01
	in monetary policy rule	(0.114)	(0.002)
ρ_r	smoothing coefficient	0.520	(0.910)
	in monetary policy rule	(0.054)	(0.002)
ϕ_y	response to hours	0.152	0.703
	in monetary policy rule	(0.013)	(0.170)
q	response to technology	0.610	n.a
	in monetary policy rule	(0.133)	(n.a)
σ_a	standard deviation of	0.3207	(n.a)
	technology shock	(0.0186)	(n.a)
σ_r	standard deviation of	n.a	0.300
	monetary shock	(n.a)	(0.138)

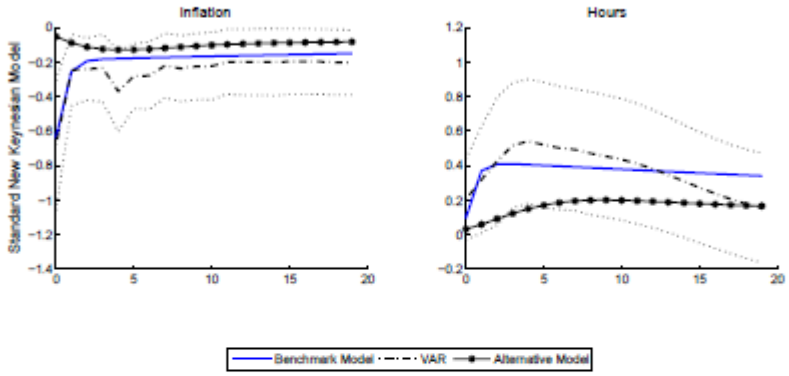
Notes: Standard errors appear in parentheses. Impulse response to monetary policy shock estimated based on imposing short-run restrictions (as in CEE).

Figure 1
The Benchmark Case. Solid Line: Economic Model; Dash Dotted Line: Point Estimate of VAR; Dotted Line: Upper/Lower Confidence Interval of VAR.



Notes: Economic model and structural VAR model response to a one standard deviation permanent increase in technology. Dotted lines are outer 90% confidence bands from structural VAR.

Figure 5
Counterfactual experiment, nominal rigidities. Alternative Model: $\nu = 0.8$, $\gamma = 1$.



Notes: Estimated economic model (solid line), alternative economic model (line with stars) and structural VAR (dash-dotted line) response to a one standard deviation permanent increase in technology. Dotted lines are outer 90% confidence bands from structural VAR.