

Comments on

**Learning and the Welfare Implications
of Changing Inflation Targets
by Kevin Moran**

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The views expressed are solely the responsibility of the discussant, and should not be interpreted as reflecting the views of the Board of Governors of the Federal Reserve System or of any other person associated with the Federal Reserve System.

Key Questions I: Comparative Statics

⇒ What are the welfare benefits of reducing the deterministic steady state inflation rate from 2 percent to 0 percent?

⇒ What is the optimal deterministic steady-state inflation rate?

- *Real money balances*
- *The credit channel (cf. CEE 2005)*
- *Wage and price determination (duration, indexing, etc.)*
- *Incomplete indexation of the tax system*

⇒ What is the optimal stochastic average inflation rate?

- *Implications of the zero lower bound*

Table 2. Welfare Benefits from Reducing Inflation from Two Percent to Zero: Sensitivity Analysis

Specification	Steady-State Comparison ^a	Complete Information Transition ^b	Bayesian Transition ^c
Benchmark Case	0.26%	49.9%	35.3%
<i>Panel A: Modifications to the Monetary Policy Rule</i>			
Higher response to inflation ($\lambda_\pi = 2.5$)	0.26%	49.7%	33.4%
Lower response to inflation ($\lambda_\pi = 1.5$)	0.26%	50.4%	38.3%
Higher interest rate smoothing ($\rho = 0.75$)	0.26%	47.2%	30.7%
No interest rate smoothing ($\rho = 0.0$)	0.26%	51.2%	41.3%
Higher response to output ($\lambda_y = 0.5$)	0.26%	49.8%	35.7%
No response to output ($\lambda_y = 0$)	0.26%	50.6%	37.9%
Higher confidence in prior ($v_1 = 8$)	0.26%	49.9%	27.2%
<i>Panel A: Alternative Modeling Choices^d</i>			
Investment and wage income in cash-in-advance constraint	0.54%	33.2%	23.5%
Habit formation in consumption	0.47%	21.3%	17.7%
Partial wage indexation	0.47%	19.0%	15.0%

^aMeasured as the consumption equivalent μ .

^bMeasured as a fraction of number in comparison between steady states

^cMeasured as a fraction of number in comparison between steady states

^dThe modeling extensions are cumulative.

Optimal Steady State Inflation

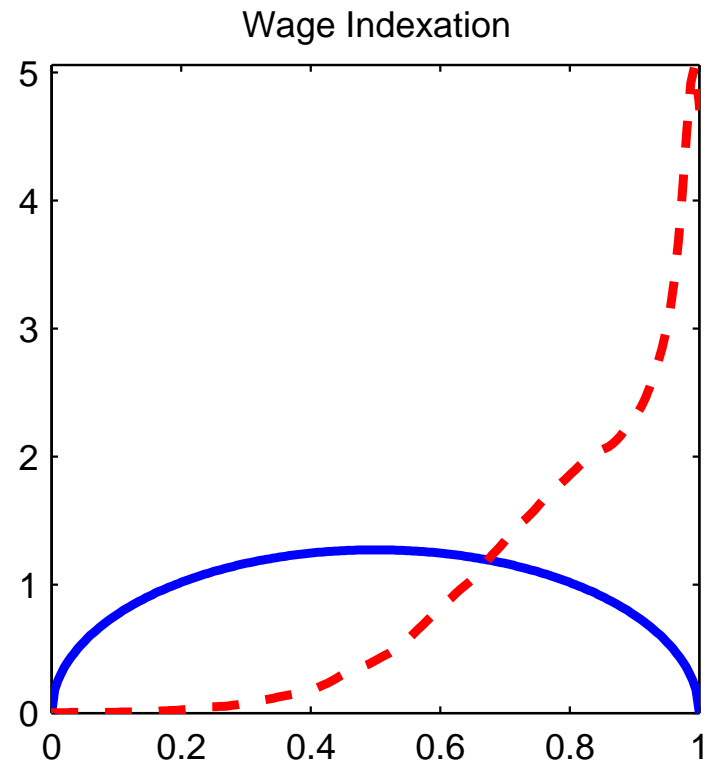
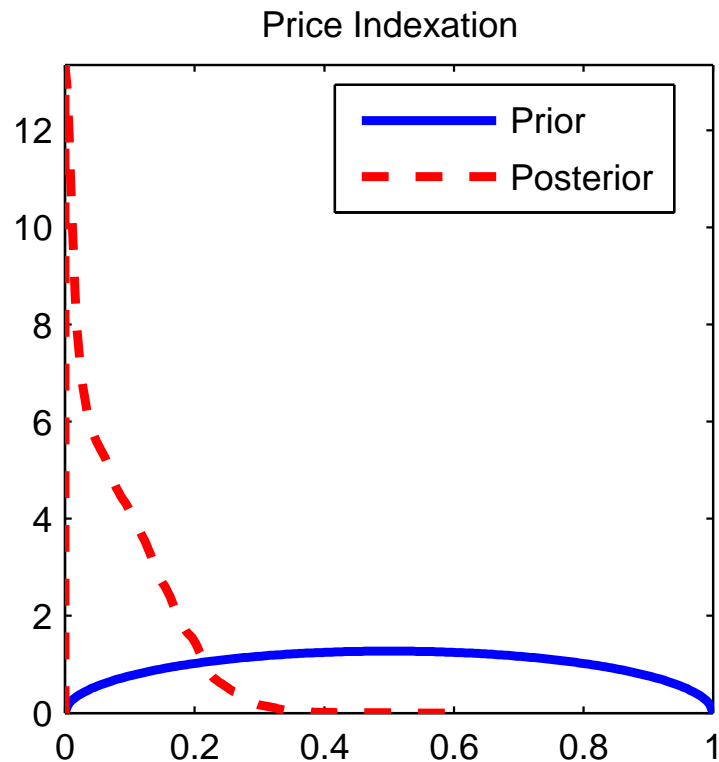
Levin and Lopez-Salido (2005)

Table 2. Optimal Steady State Inflation rate and the Welfare Benefits from Zero to Ramsey Inflation

	Price and Wage Indexation		Only Wage Indexation		No Indexation	
	π^*	W	π^*	W	π^*	W
No Credit Friction	-	0.00	0.00	0.00	0.00	0.00
Subsidies	-4	0.08	-0.05	<0.01	-0.01	<0.01
Baseline Case	-4	0.27	-1.35	0.04	-0.22	<0.01
Tax Distortions	-4	0.40	-2.05	0.09	-0.35	<0.01

Note: Permanent Percentage shift in steady state consumption.

Priors and Posteriors



- Data favors much wage indexation, little price indexation.

Key Questions II: Transition Dynamics

- ⇒ What are the first-order welfare costs associated with the dynamic transition from 2 percent to 0 percent?
- ⇒ Can the structural model match the salient features of historical disinflation episodes in industrial economies?
 - *Interest sensitivity of investment spending*
- ⇒ To what extent is the outcome affected by the central bank's communication strategy?
 - *Do credibility and transparency matter?*
 - *Can the real costs be reduced by a more gradual disinflation?*

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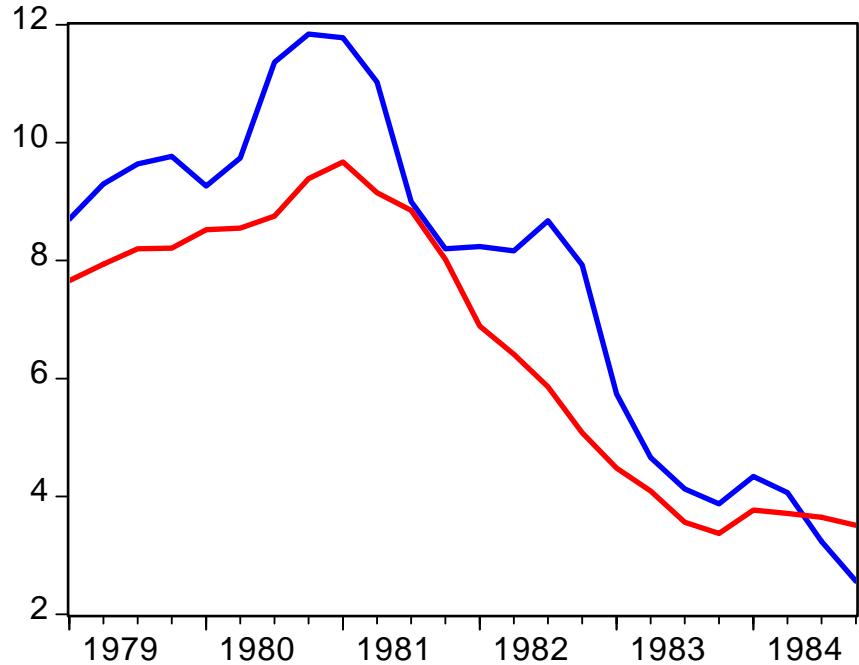
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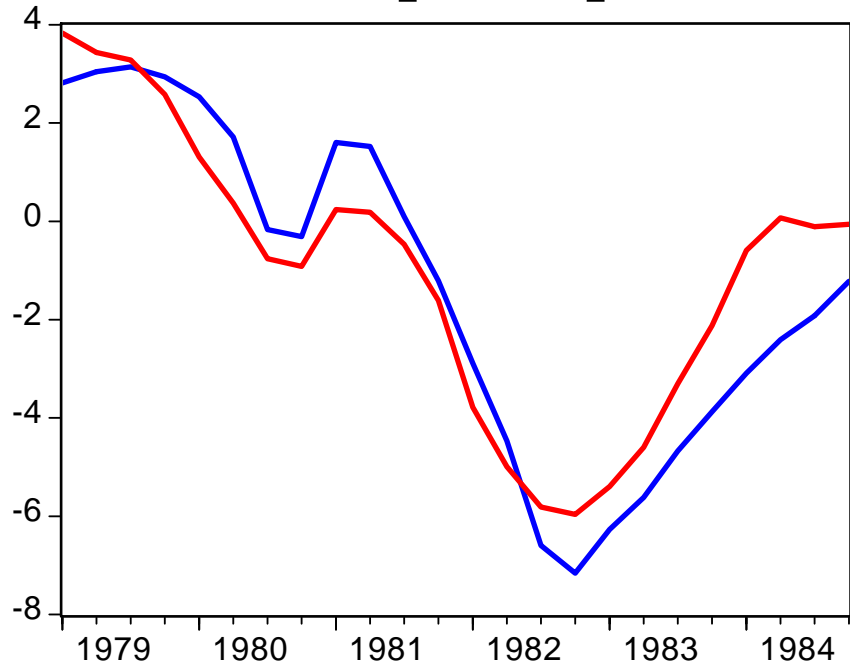
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GDP Price Inflation



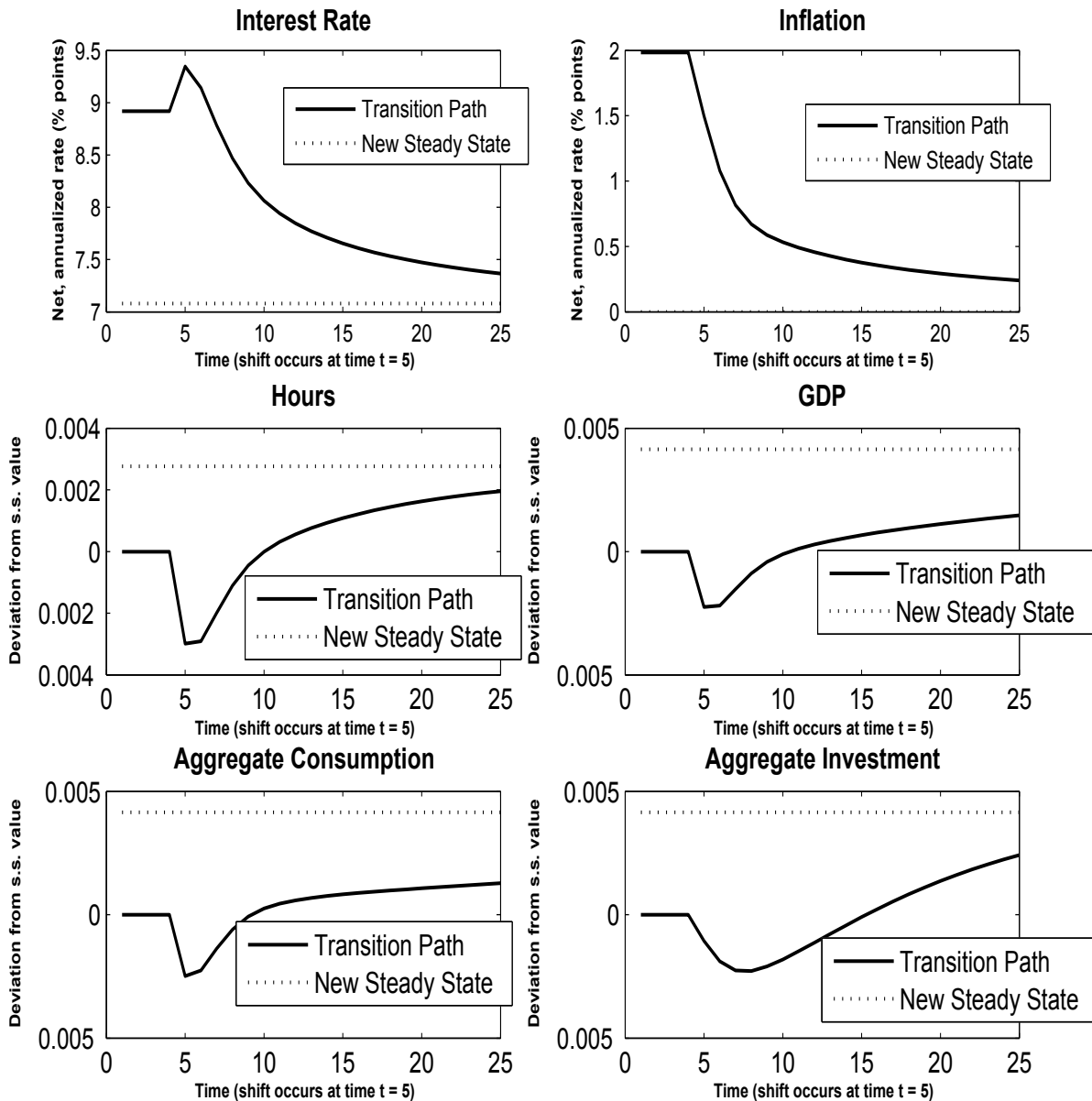
— Canada — United States

Output Gap



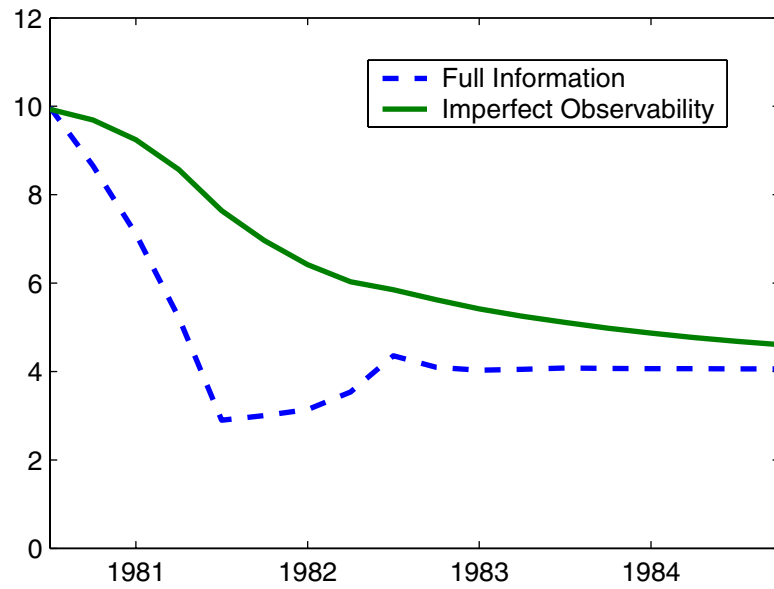
— Canada — United States

Figure 2: Transition Path Following the Inflation Target Shift
 (Shock occurs at $t = 5$)

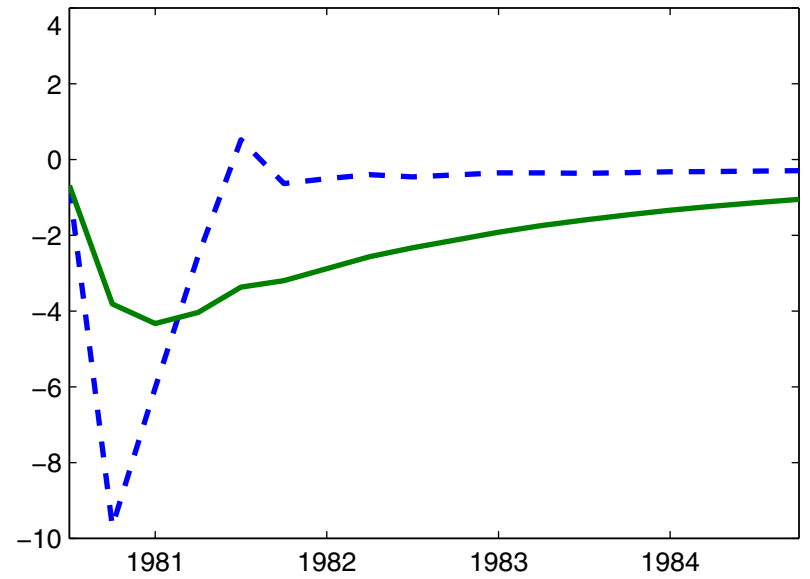


Disinflation Simulations from Erceg and Levin (2003)

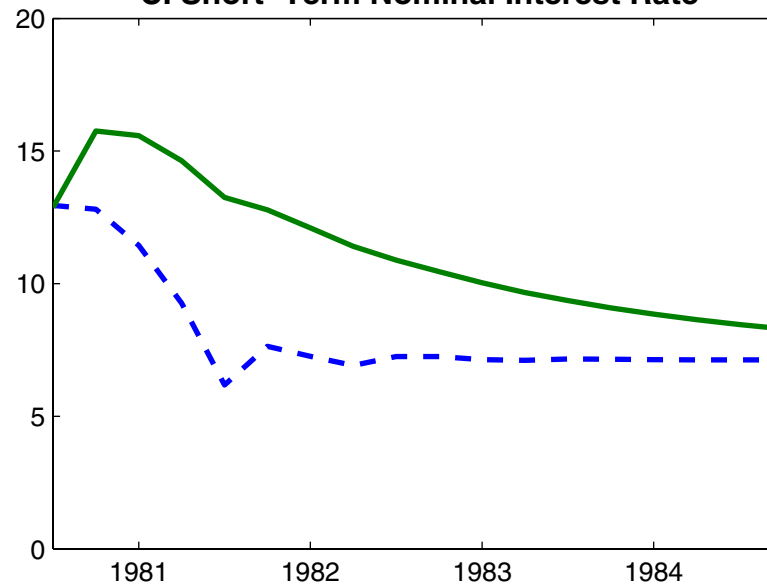
A. GDP Price Inflation



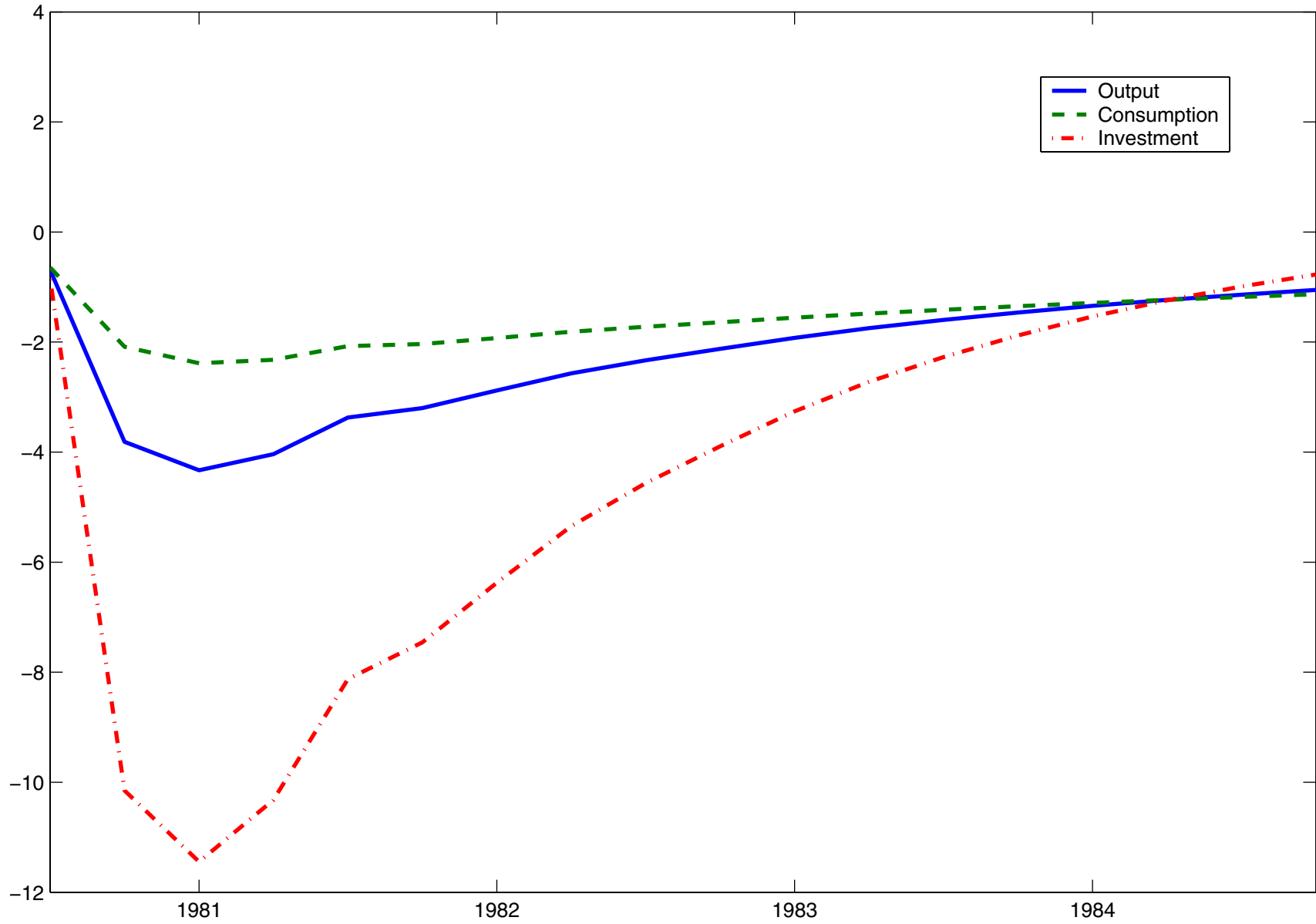
B. Output Gap



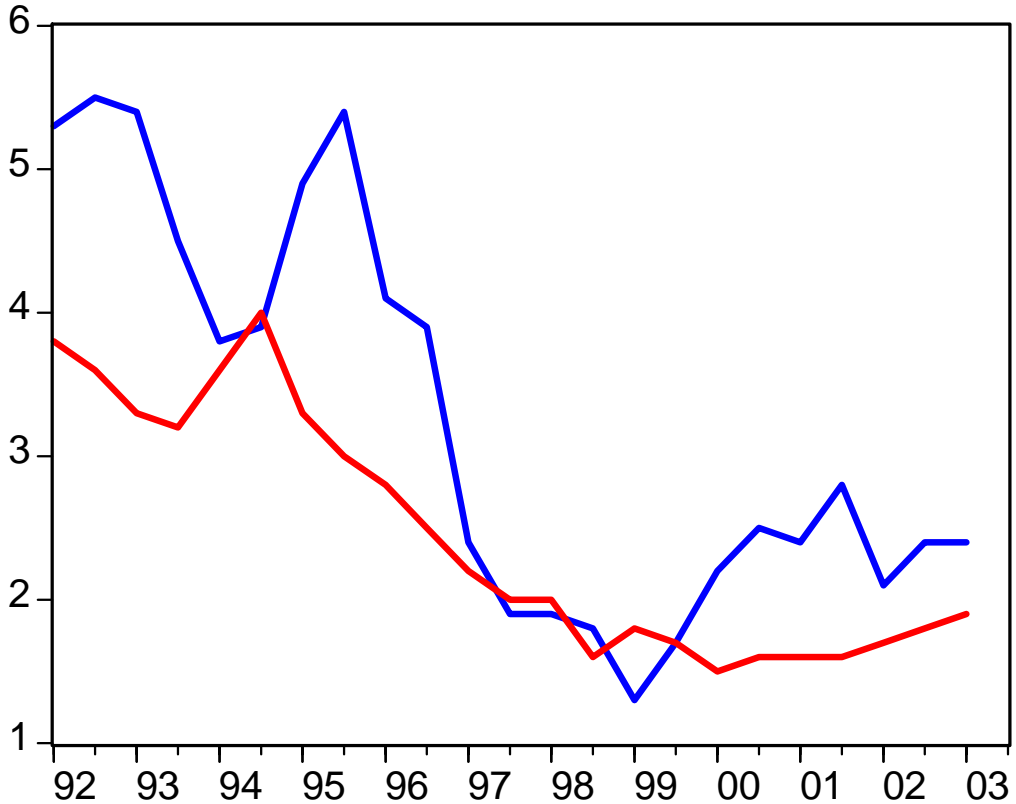
C. Short-Term Nominal Interest Rate



Expenditure Components of Real GDP



Italy's Convergence to EMU



— GDP Price Inflation

— Consensus Forecast (6-to-10 years)