<<Bernanke, Gertler, and Gilchrist>>

(1) Aggregate demand

$$y_t = \frac{C}{Y}c_t + \frac{I}{Y}i_t + \frac{G}{Y}g_t + \frac{C^e}{Y}c_t^e + \cdots + \phi_t^y, \tag{4.14}$$

$$c_t = -r_{t+1} + E_t\{c_{t+1}\}, \tag{4.15}$$

$$c_t^e = n_{t+1} + \cdots + \phi_t^{c^e}, \tag{4.16}$$

$$E_t\{r_{t+1}^k\} - r_{t+1} = -v[n_{t+1} - (q_t + k_{t+1})], \tag{4.17}$$

$$r_{t+1}^k = (1-\epsilon)(y_{t+1} - k_{t+1} - x_{t+1}) + \epsilon q_{t+1} - q_t, \tag{4.18}$$

$$q_t = \varphi(i_t - k_t). \tag{4.19}$$

(2) Aggregate Supply

$$y_t = a_t + \alpha k_t + (1-\alpha)\Omega h_t, \tag{4.20}$$

$$y_t - h_t - x_t - c_t = \eta^{-1}h_t, \tag{4.21}$$

$$\pi_t = E_{t-1}\{\kappa(-x_t) + \beta\pi_{t+1}\}. \tag{4.22}$$

(3) Evolution of State Variables

$$k_{t+1} = \delta i_t + (1-\delta)k_t, \tag{4.23}$$

$$n_{t+1} = \frac{\gamma RK}{N}(r_t^k - r_t) + r_t + n_t + \cdots \phi_t^n. \tag{4.24}$$
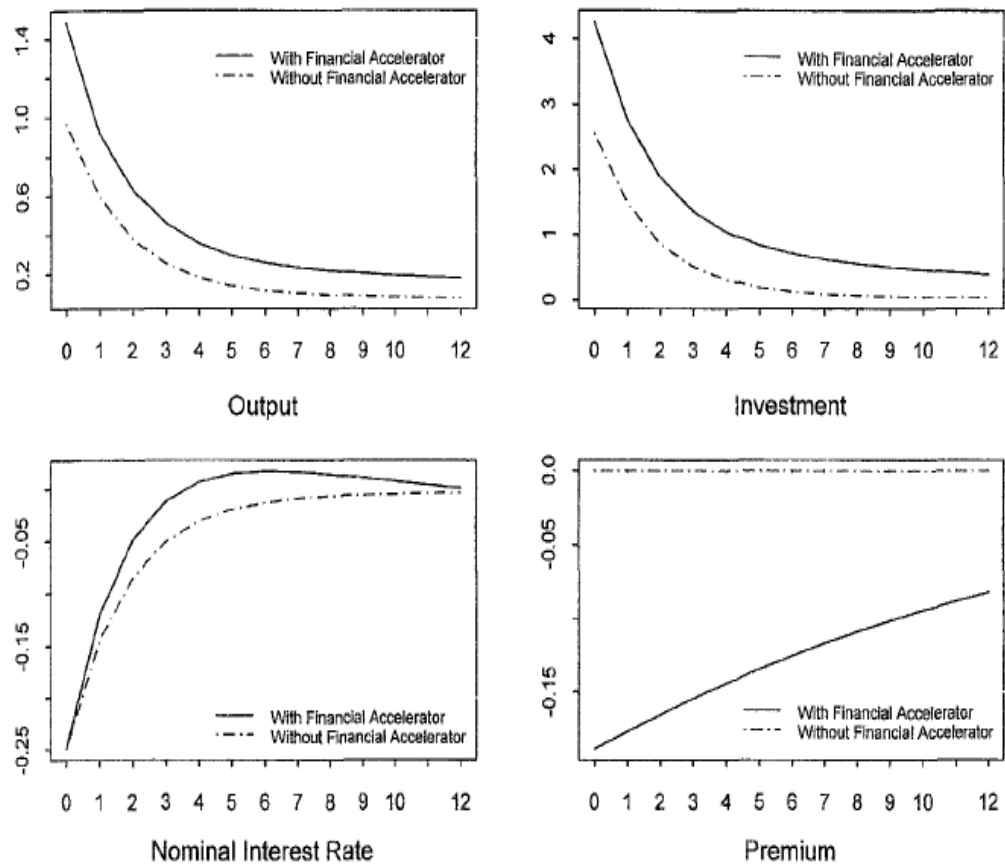
Fig. 3. Monetary shock -- no investment delay. All panels: time horizon in quarters.
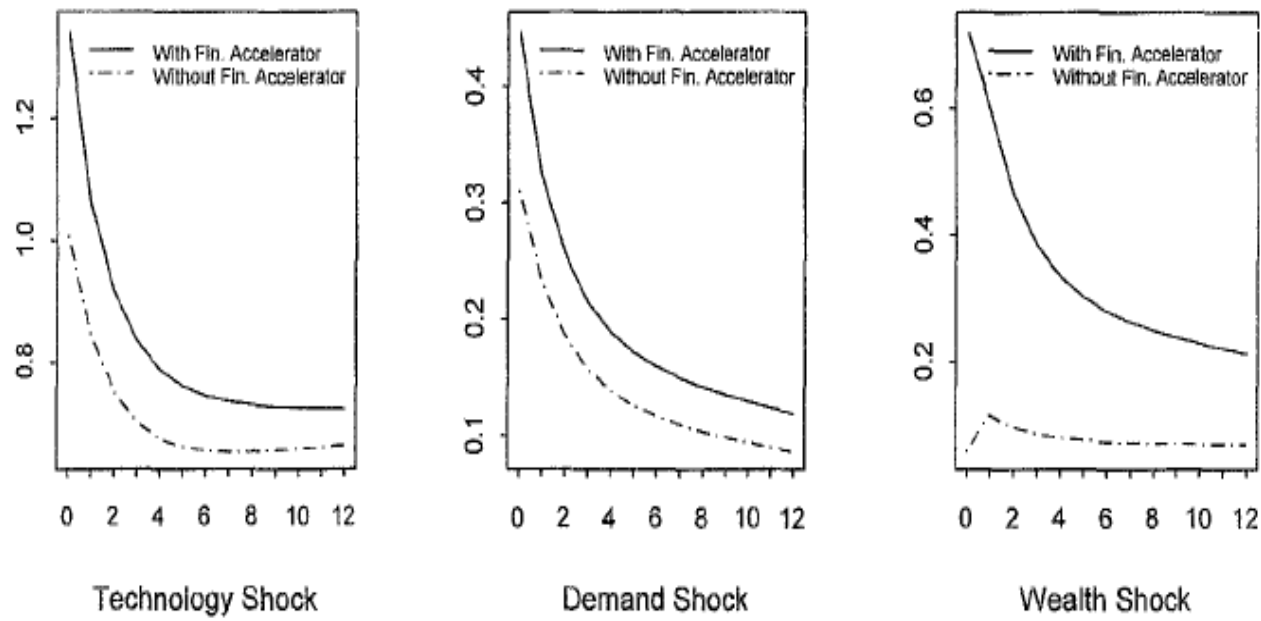
Fig. 4. Output response – alternative shocks. All panels: time horizon in quarters.

<<Christensen & Dib>>

ML Estimates

Table 2

Maximum-likelihood estimates: 1979Q3 to 2004Q3

Parameters	FA model		EstNoFA model	
	Estimates	Std. errors	Estimates	Std. errors
ψ	0.0420	0.0137	–	–
χ	0.5882	0.1742	0.4913	0.1293
α	0.3384	0.0259	0.3741	0.0363
γ	0.0598	0.0039	0.0857	0.0211
ϕ	0.7418	0.0118	0.7674	0.0408
ϱ_π	1.4059	0.0788	1.3557	0.2098
ϱ_y	0.2947	0.0690	0.1379	0.0647
ϱ_μ	0.6532	0.0783	0.7212	0.2135
σ_R	0.0058	0.0003	0.0061	0.0013
ρ_A	0.7625	0.0262	0.7745	0.0561
σ_A	0.0096	0.0015	0.0128	0.0067
ρ_b	0.7206	0.0242	0.5547	0.0164
σ_b	0.0103	0.0008	0.0135	0.0028
ρ_z	0.6156	0.0194	0.7549	0.0380
σ_z	0.0073	0.0007	0.0083	0.0012
ρ_x	0.6562	0.0161	0.7930	0.0476
σ_x	0.0331	0.0039	0.0240	0.0055
LL	1911.2		1904.3	

IRF
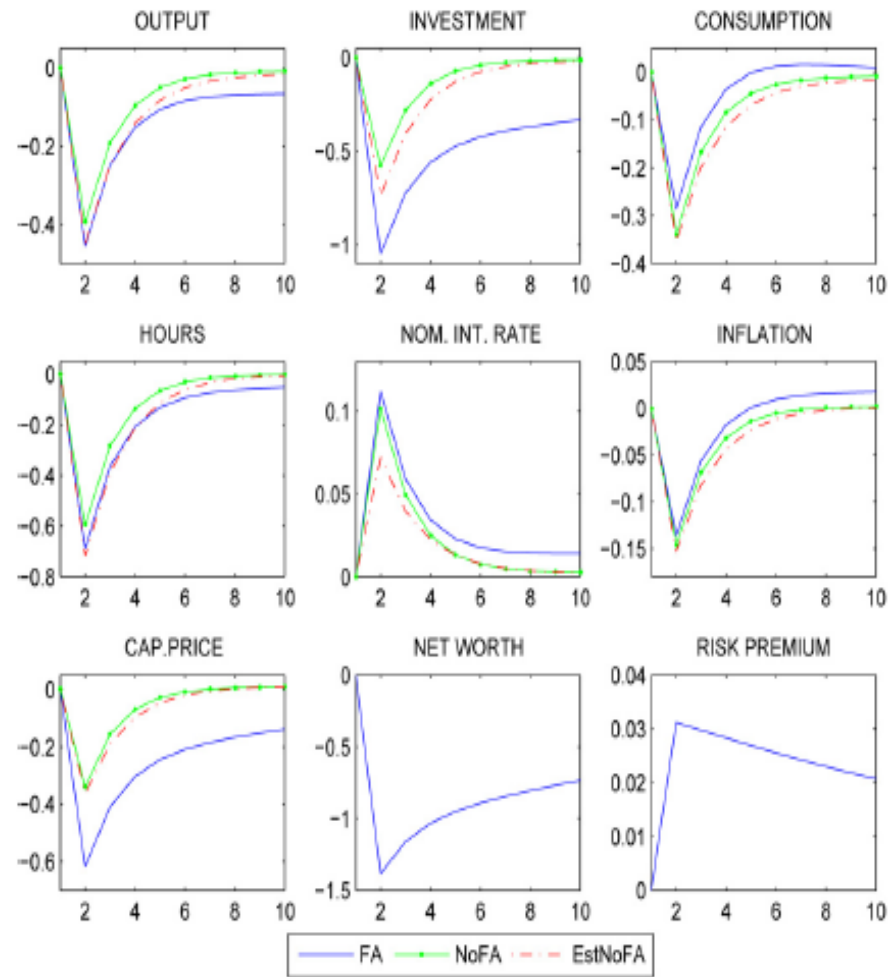
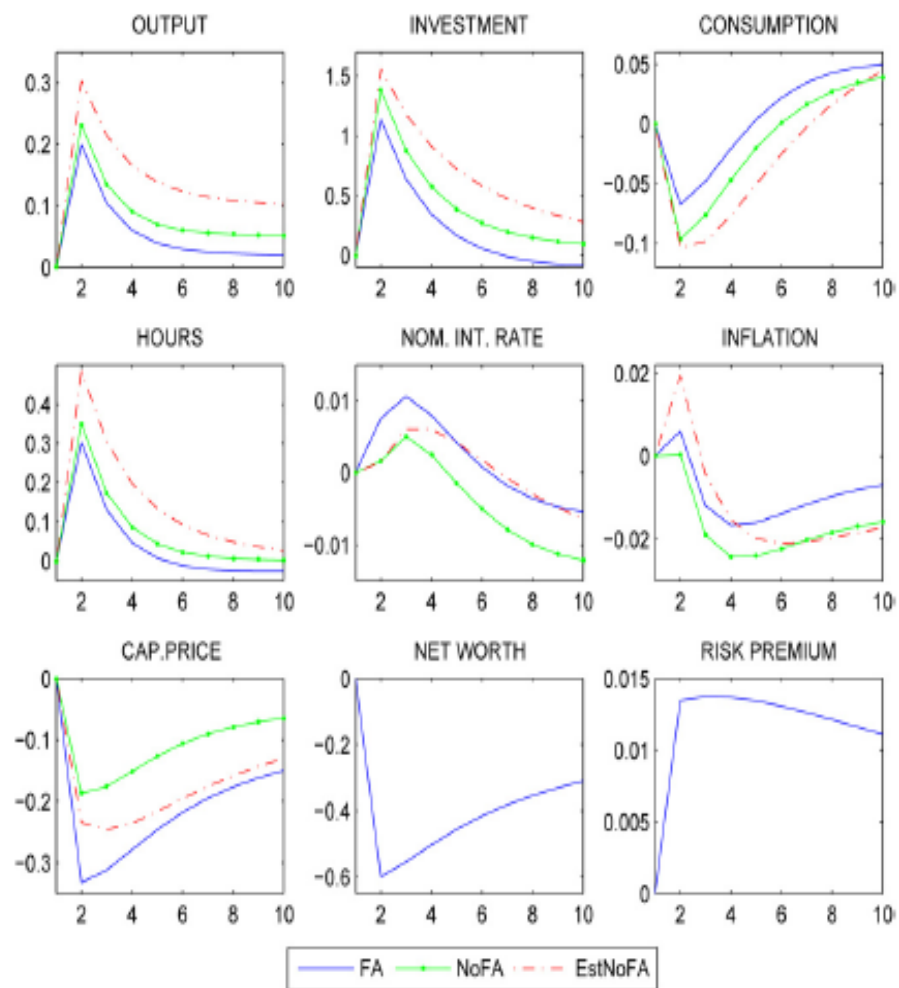*Note*: The responses are percentage deviations of a variable from its steady-state value.

Fig. 1. The economy's responses to a tightening monetary policy shock.
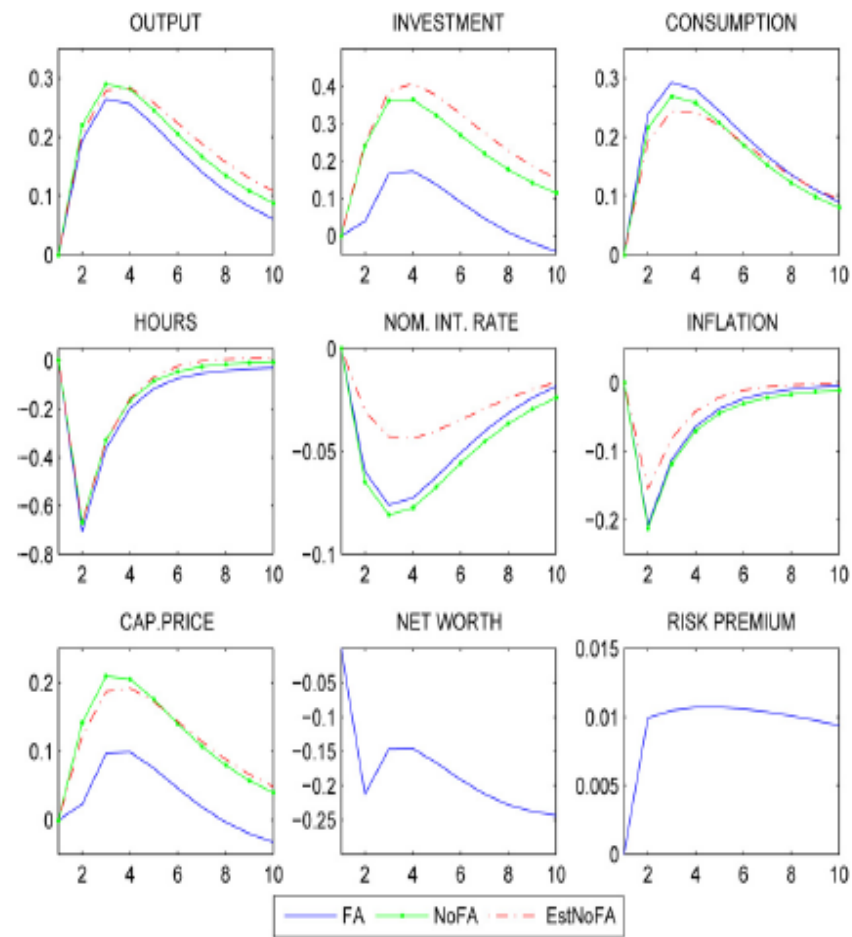
Note: The responses are percentage deviations of a variable from its steady-state value.

Fig. 2. The economy's responses to a positive technology shock.

OUTPUT   INVESTMENT   CONSUMPTION

HOURS   NOM. INT. RATE   INFLATION

CAP.PRICE   NET WORTH   RISK PREMIUM

FA   NoFA   EstNoFA

Note: The responses are percentage deviations of a variable from its steady-state value.

Fig. 5. The economy's responses to a positive investment-efficiency shock.

VD

Table 5
Ten-quarter-ahead forecast-error variance decompositions

Variable	Variance	Percentage owing to:				
		Technology	Mon. demand	Policy	Preference	Investment
		A. FA model				
y_t	0.0117	23.48	3.88	9.60	8.05	54.96
i_t	0.2235	0.38	1.20	4.45	2.22	91.73
c_t	0.0096	37.80	2.75	3.39	35.44	20.60
m_t	0.0272	52.68	22.21	8.64	0.09	16.36
R_t	0.0009	26.39	34.81	7.41	26.87	4.50
π_t	0.0009	66.10	6.95	9.10	1.41	16.42
		B. NoFA model				
y_t	0.0168	21.01	2.22	4.07	6.42	66.26
i_t	0.3735	1.52	0.18	0.39	0.66	97.23
c_t	0.0096	31.67	3.15	5.41	33.21	26.55
m_t	0.0286	50.35	20.97	8.55	0.07	20.07
R_t	0.0009	30.65	31.25	5.18	24.78	8.14
π_t	0.0012	54.21	3.63	7.90	0.98	33.57
		C. EstNoFA model				
y_t	0.0247	27.35	1.79	4.44	6.86	59.55
i_t	0.3754	3.59	0.26	0.78	1.28	94.08
c_t	0.0141	36.17	2.23	4.95	42.04	14.61
m_t	0.0303	67.08	9.02	10.47	0.16	13.25
R_t	0.0007	21.41	45.20	3.78	27.83	1.77
π_t	0.0009	59.94	3.72	13.48	2.39	20.46

<<De Graeve>>

EFP

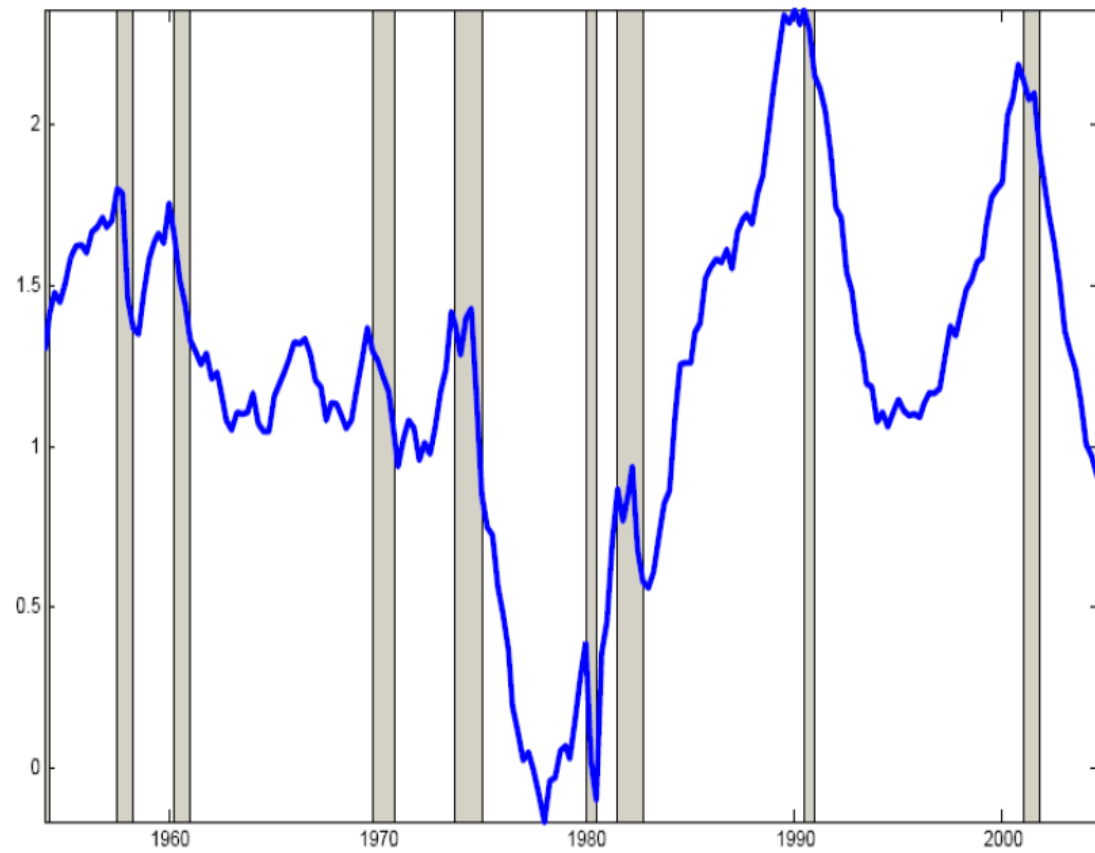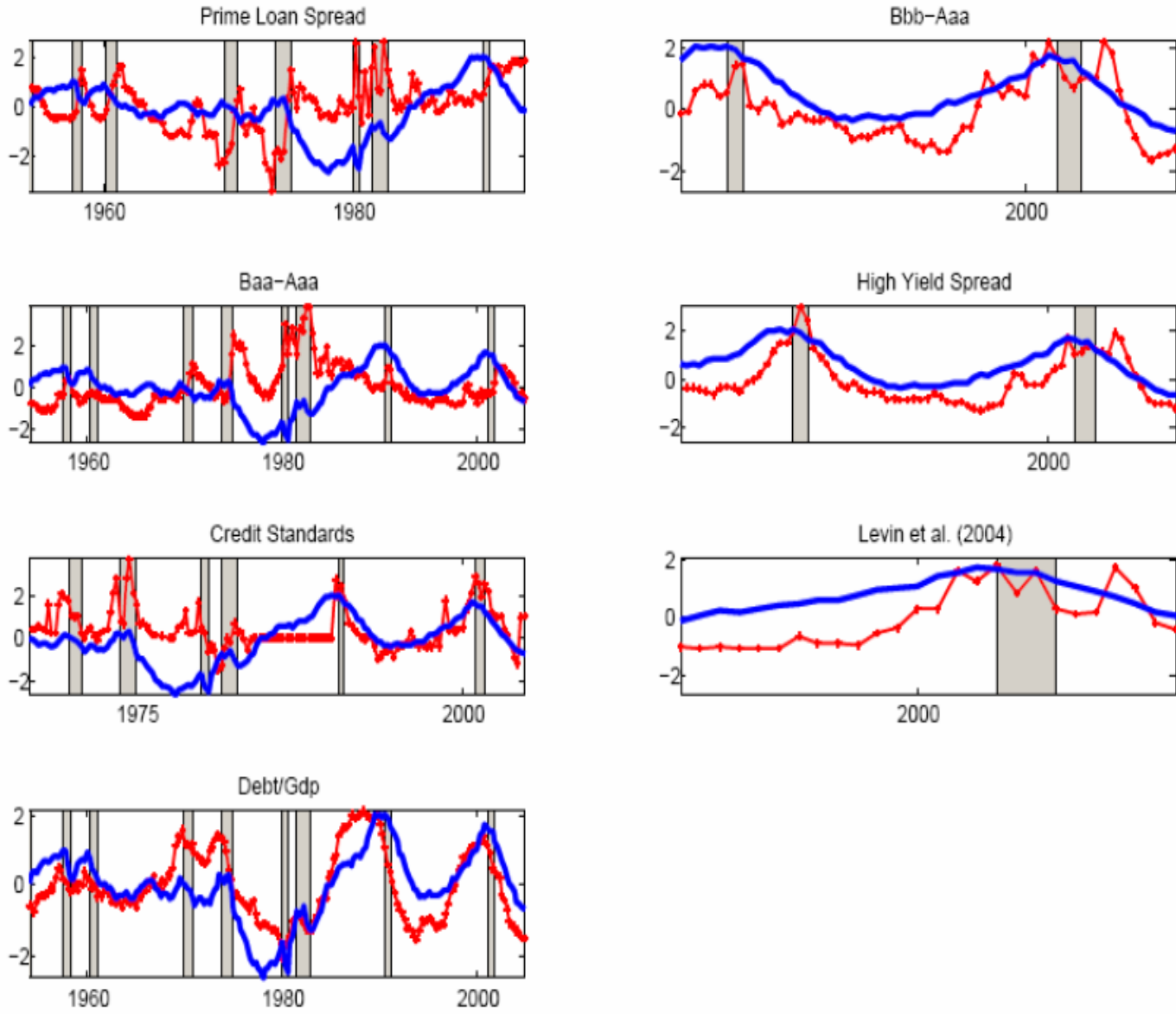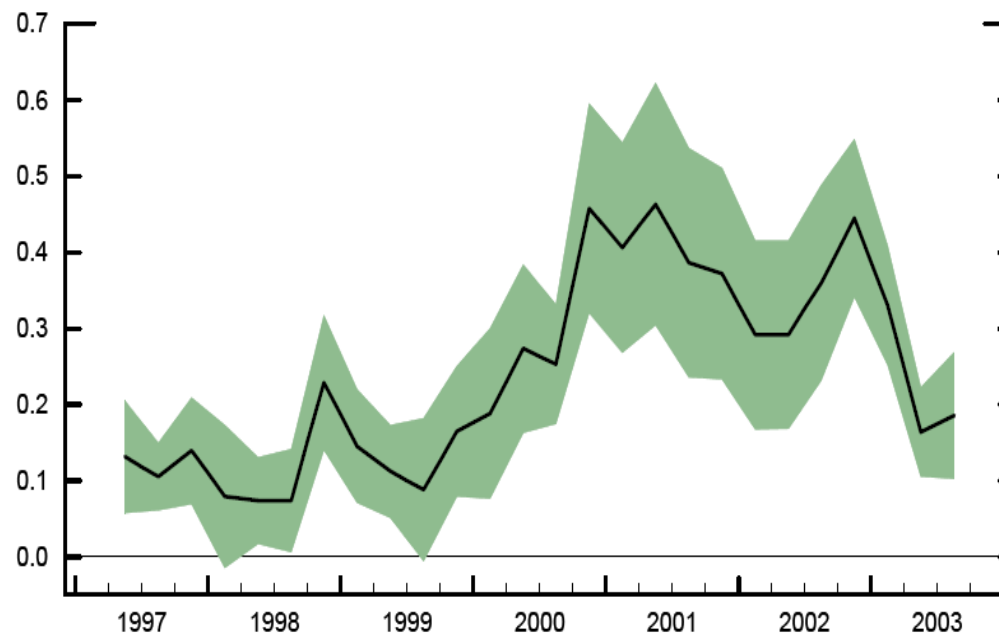Figure 2: The External Finance Premium

Figure 3: The External Finance Premium (solid line) and Alternative Indicators (+)
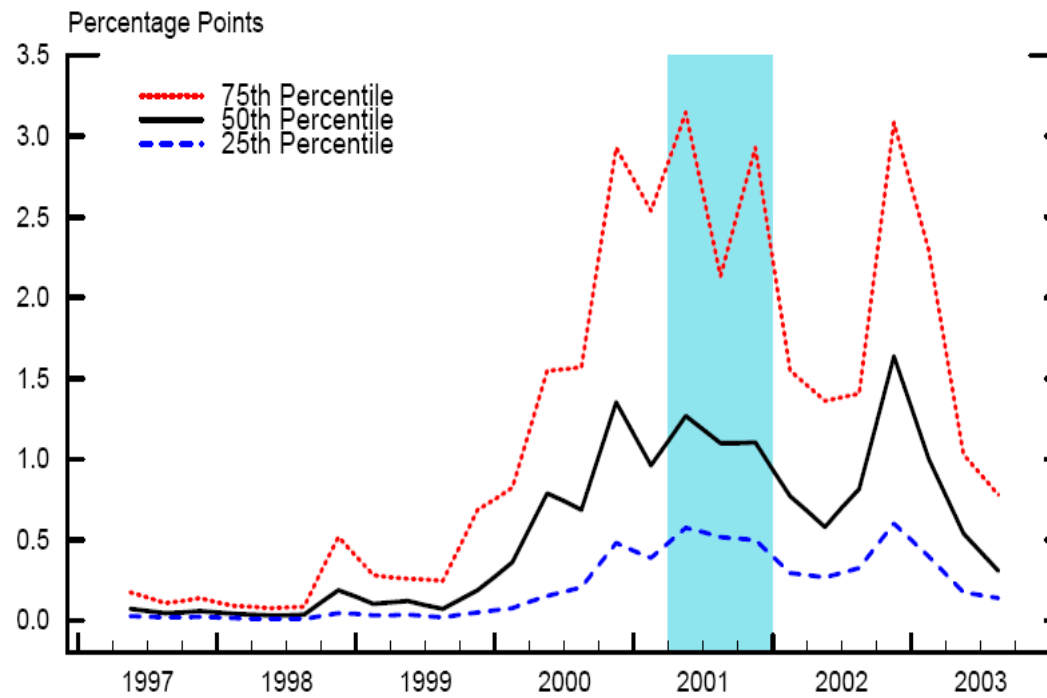
<<Levin et al.>>

Figure 5: Benchmark Results for the Bankruptcy Cost Parameter

NOTES: The solid line denotes the time-specific estimate of the bankruptcy cost parameter μ_t. The shaded region represents the 95 percent confidence interval, computed using White's (1980) heteroscedasticity-consistent asymptotic covariance matrix.
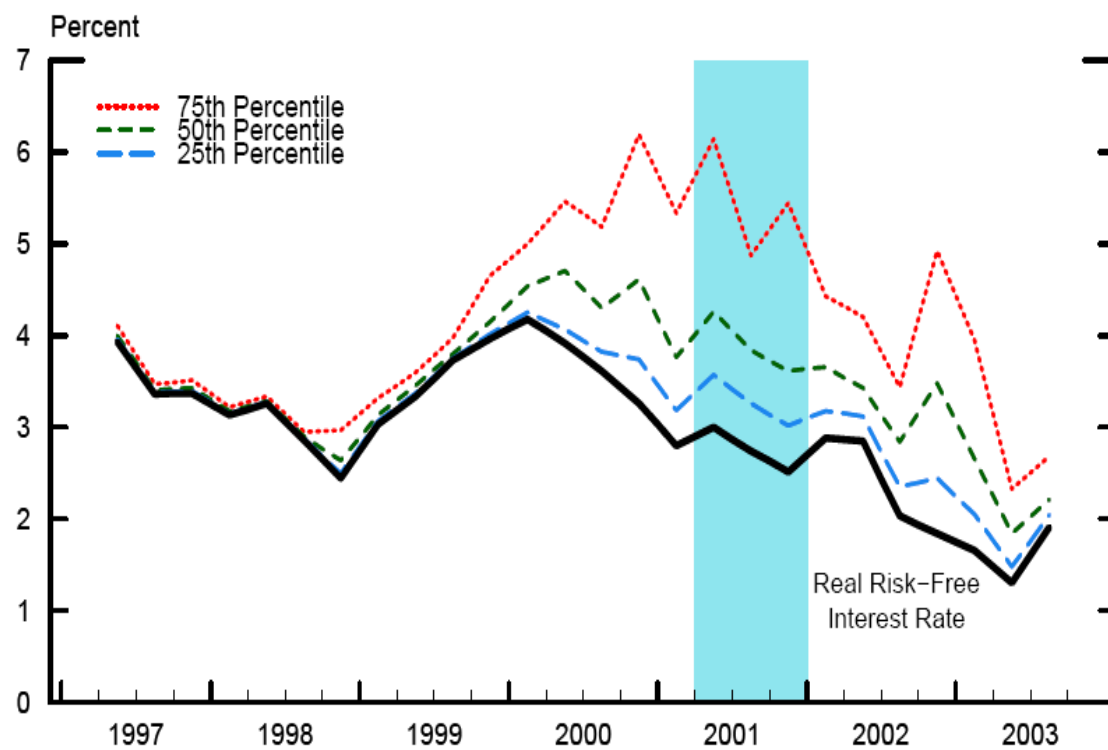
Figure 6: Cross-Sectional Distribution of the External Finance Premium

NOTES: Each line denotes the specified sales-weighted percentile for the model-implied external finance premium constructed using our benchmark estimates of the bankruptcy cost parameter μ_t.

Figure 9: Benchmark Results for the Cost of External Finance

NOTES: The solid line denotes the risk-free real interest rate, that is, the 10-year nominal Treasury yield less expected inflation as measured by the Philadelphia Fed's Survey of Professional Forecasters. The other three lines denote the specified sales-weighted percentiles for the cost of external finance, that is, the risk-free rate plus the model-implied external finance premium.