

Table 4 Estimation Results of Logit Models

	Variables	Lik.	BIC	PE		Variables	Lik.	BIC	PE
1	C	-161.65	164.38	0.499	24	S ₋₁ ,D,R	-31.76	39.95	0.459
2	S ₋₁	-103.79	106.52	0.520	25	S ₋₁ ,D ₋₁ ,R ₋₁	-36.59	44.78	0.477
3	D	-138.84	141.57	0.429	26	C,S ₋₁ ,D,R	-29.39	40.31	0.469
4	D ₋₁	-140.47	143.20	0.471	27	C,S ₋₁ ,D ₋₁ ,R ₋₁	-32.16	43.07	0.481
5	R	-161.88	164.60	0.510	28	C,S ₋₁ ,D,D'	-31.71	42.62	0.483
6	R ₋₁	-161.72	164.45	0.508	29	C,S ₋₁ ,R,R'	-32.30	43.21	0.478
7	C, S ₋₁	-34.85	40.30	0.500	30	C,S ₋₁ ,D,D',R,R'	-27.42	43.79	0.430
8	C,D	-88.72	94.18	0.389	31	S ₋₁ ,D,D'	-31.73	39.92	0.447
9	C,R	-156.45	161.91	0.460	32	S ₋₁ ,R,R'	-53.11	61.29	0.505
10	C,D ₋₁	-95.45	100.90	0.447	33	S ₋₁ ,D,D',R,R'	-28.08	41.72	0.498
11	C,R ₋₁	-155.23	160.68	0.459	34	C,S ₋₁ ,D ₋₁ ,D ₋₁ '	-33.91	44.82	0.494
12	S ₋₁ ,D	-33.21	38.67	0.477	35	C,S ₋₁ ,R ₋₁ ,R ₋₁ '	-32.79	43.71	0.487
13	S ₋₁ ,R	-62.72	68.18	0.521	36	C,S ₋₁ ,D ₋₁ ,D ₋₁ ',R ₋₁ ,R ₋₁ '	-31.65	48.02	0.475
14	S ₋₁ ,D ₋₁	-37.21	42.67	0.492	37	S ₋₁ ,D ₋₁ ,D ₋₁ '	-36.65	44.84	0.496
15	S ₋₁ ,R ₋₁	-61.82	67.27	0.509	38	S ₋₁ ,R ₋₁ ,R ₋₁ '	-51.20	59.38	0.503
16	D,R	-96.82	102.28	0.331	39	S ₋₁ ,D ₋₁ ,D ₋₁ ',R ₋₁ ,R ₋₁ '	-35.57	49.20	0.483
17	D ₋₁ ,R ₋₁	-98.27	103.73	0.387	40	C,D,D'	-35.94	44.12	0.458
18	C,S ₋₁ ,D	-32.29	40.47	0.488	41	C,R,R'	-59.46	67.65	0.492
19	C,S ₋₁ ,R	-32.61	40.79	0.486	42	C,D,D',R,R'	-31.15	44.79	0.430
20	C,S ₋₁ ,D ₋₁	-34.31	42.49	0.497	43	D,D'	-52.35	57.80	0.509
21	C,S ₋₁ ,R ₋₁	-32.98	41.17	0.490	44	R,R'	-60.59	66.05	0.494
22	C,D,R	-81.60	89.78	0.354	45	D,D',R,R'	-34.37	45.28	0.430
23	C,D ₋₁ ,R ₋₁	-86.80	94.99	0.407					

X' denotes X*S_{t-1}.

Figure 1 Macro Time Series

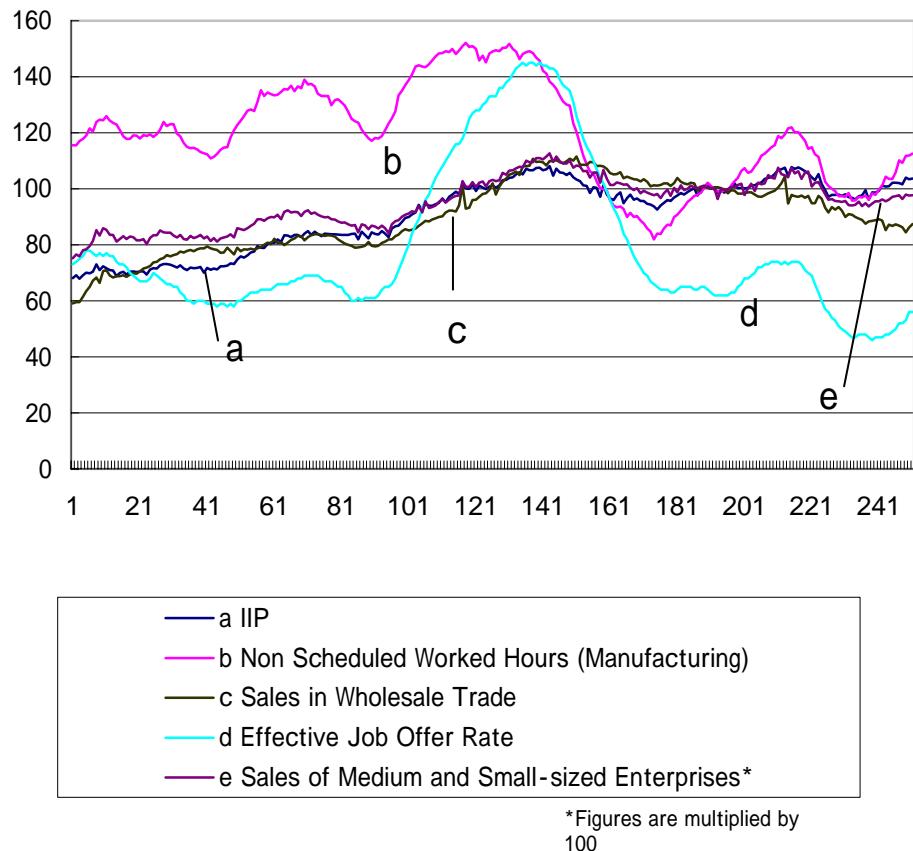


Figure 2 The Short-term Economic Survey of Enterprises in Japan

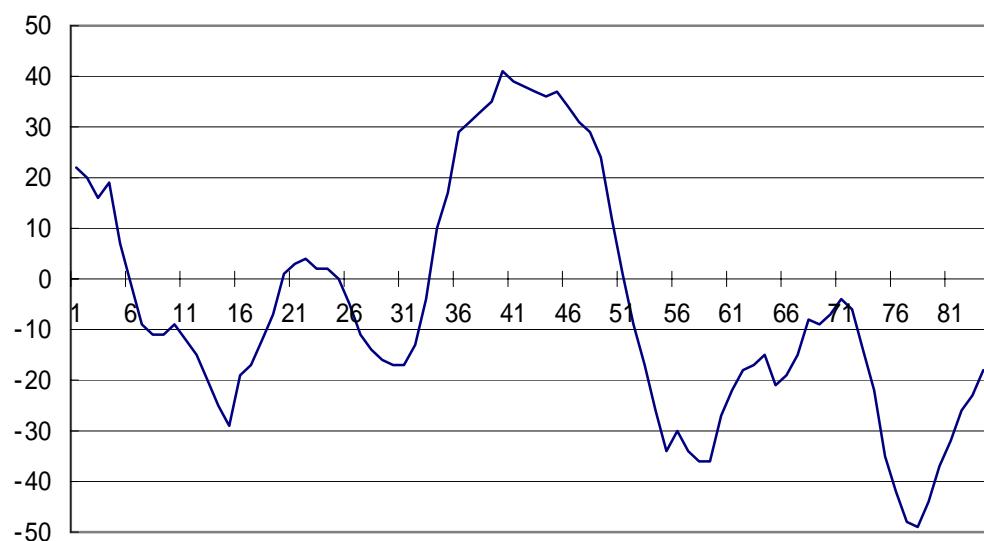


Figure 3 Business Cycle Extracted from 4 Variables

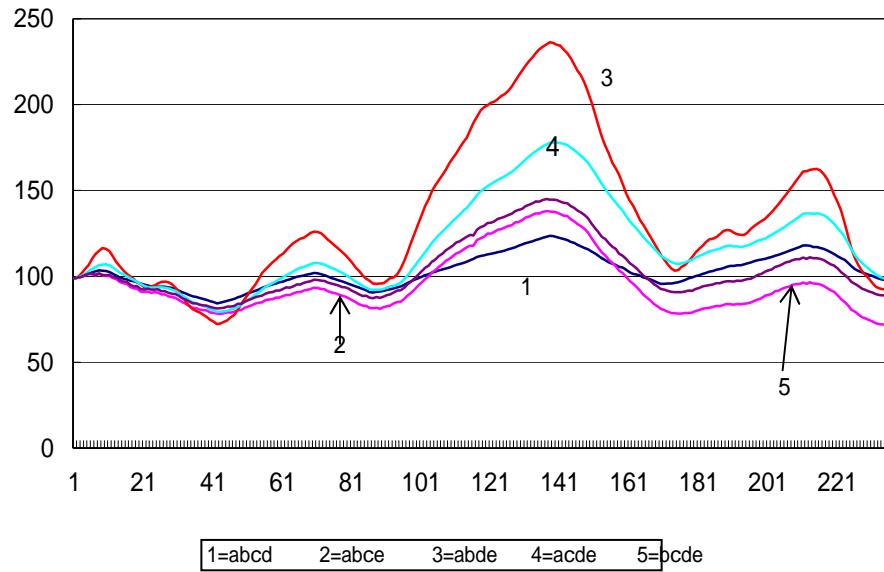
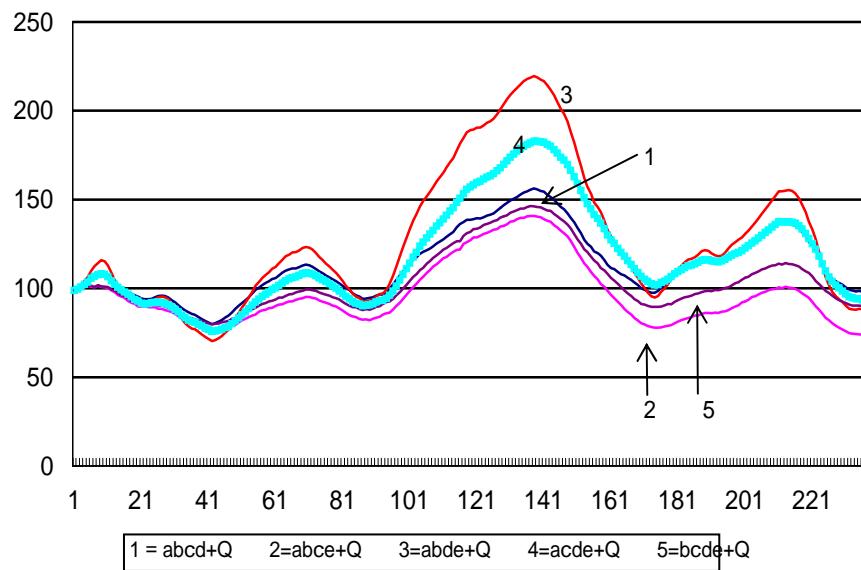


Figure 4 Business Cycle Extracted from 4 Variables and the Short-term Outlook



**Figure 5 Business Cycle Indicator Constructed
from 5 Variables and the Short-term
Outlook (October 1979 - April 1999)**

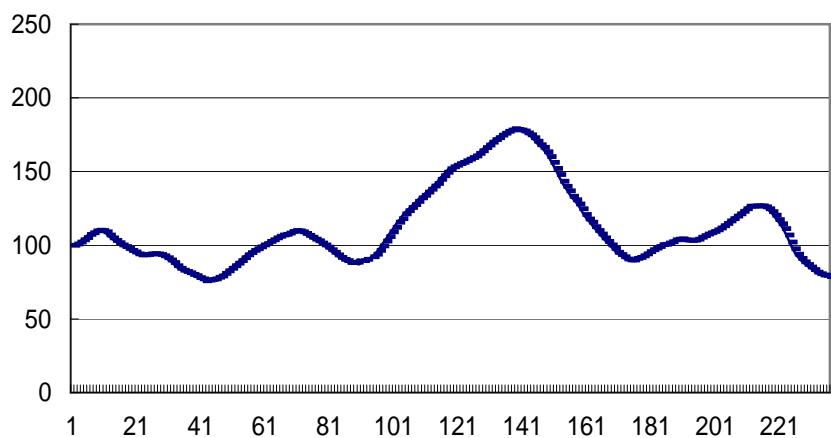


Figure 7: The Peak of the 13th Cycle and Log Likelihood

The peak of the 12th cycle: March 1997

The trough of the 12th cycle: April 1999

(provisional turning points)

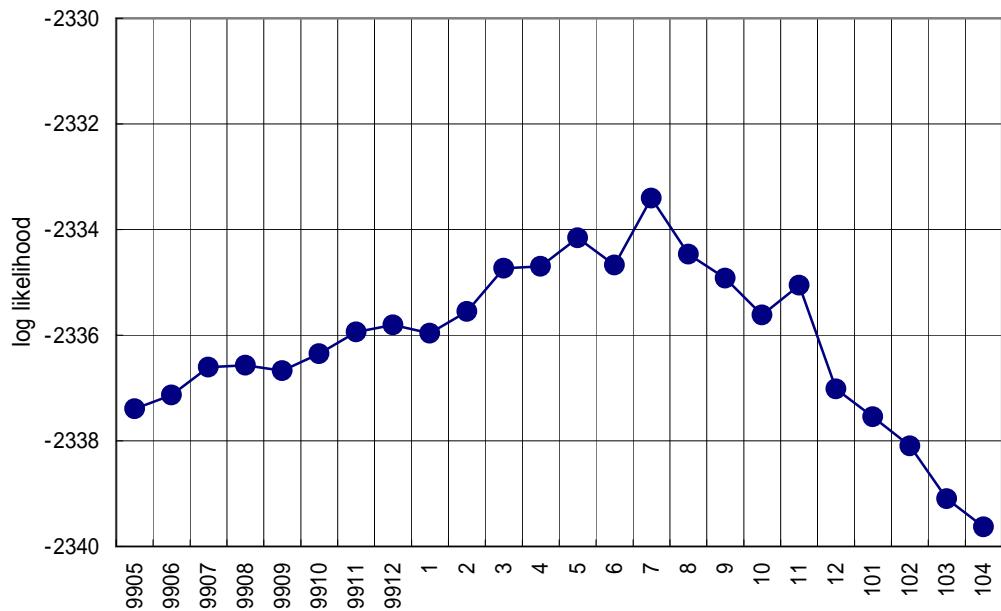


Figure 8: The Peak of the 13th Cycle and Log Likelihood

The peak of the 12th cycle: March 1997

The trough of the 12th cycle: January 1999

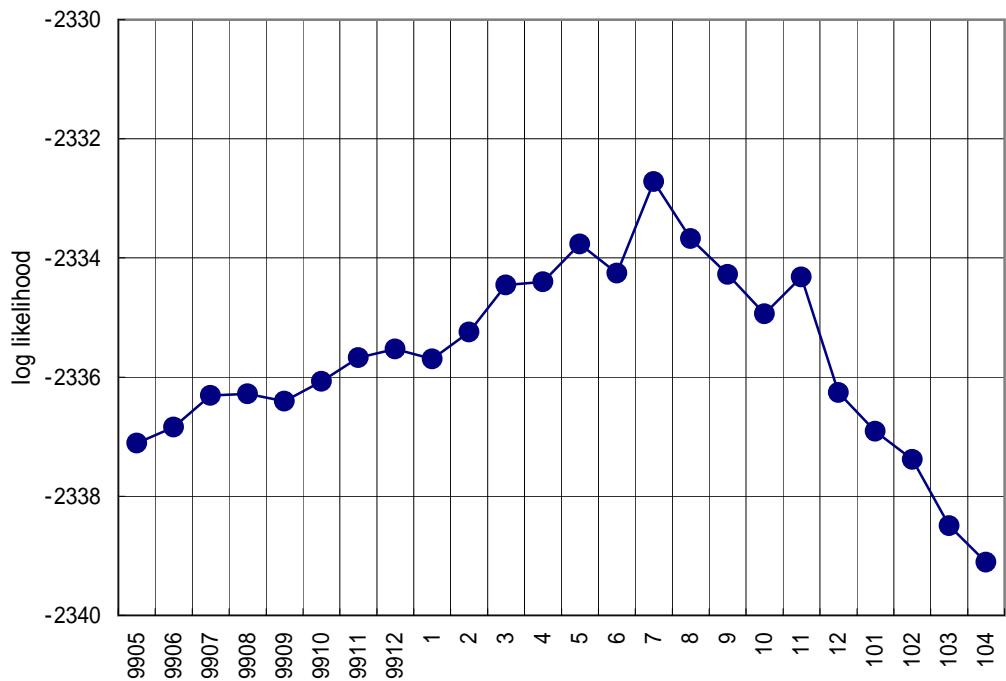


Figure 9: The Peak of the 13th Cycle and Log Likelihood

The peak of the 12th cycle: May 1997

The trough of the 12th cycle: January 1999
(finalized turning points)

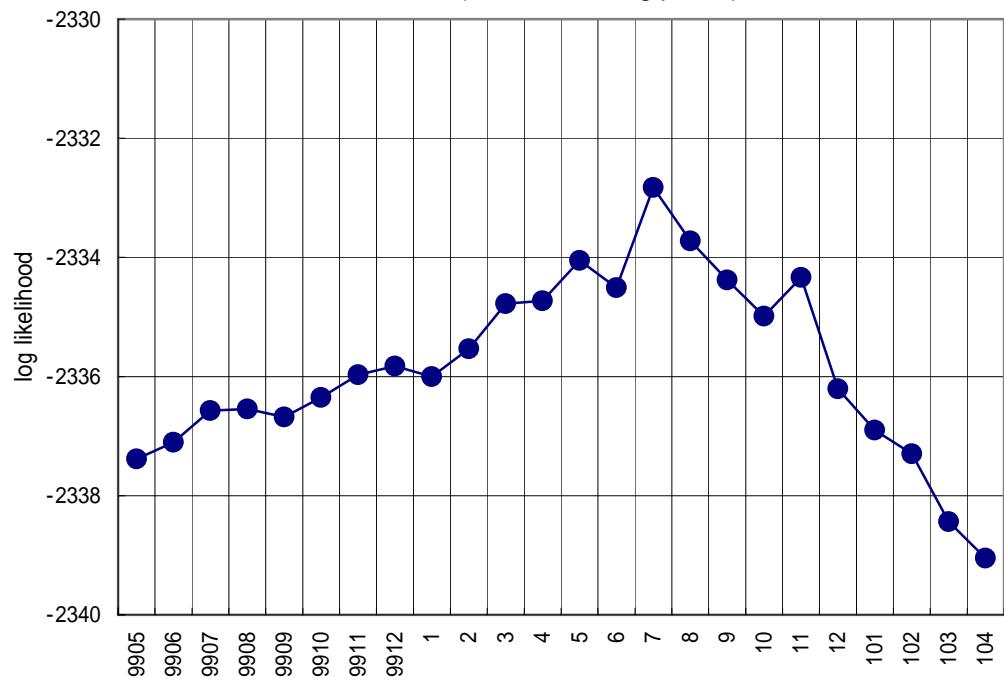


Figure 10 Transition of Estimates of the Coefficient

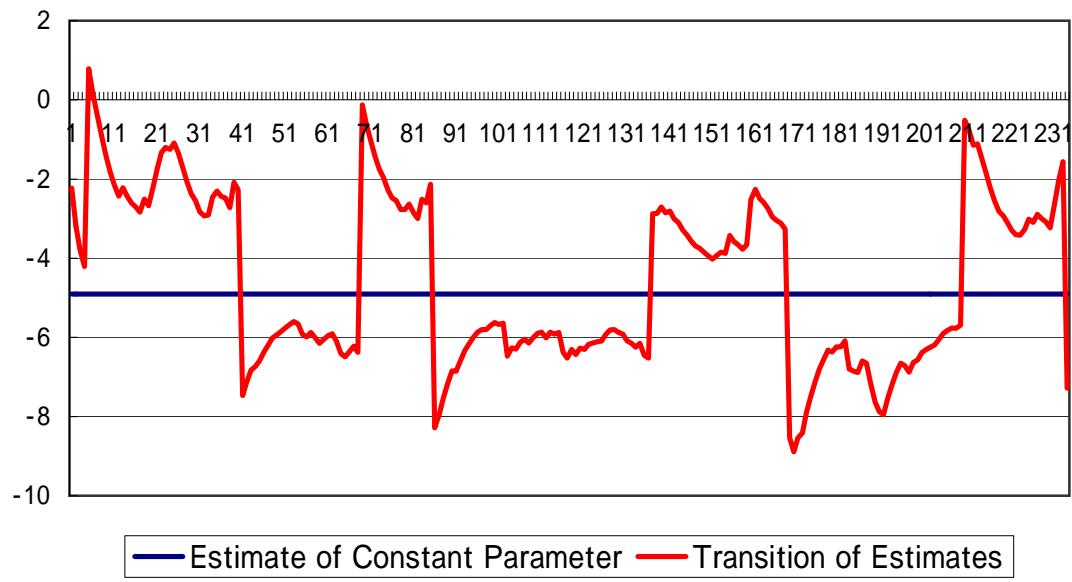


Figure 11 Transition of Probabilities of Being in Expansion

