Table 1: Tests for structural change in conditional volatility - number of rejections and median percent change in standard deviation for types of series

	L		SC		NL		NL-SC	
Group	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$
Production (24)	21	−32.8	21	−37.6	20	−33.3	20	−34.6
(Un)Employment (29)	28	−37.9	29	−37.4	28	−36.5	28	−36.1
Wages and salaries (7)	7	−44.2	7	−44.4	7	−43.6	7	−45.0
Construction (21)	14	−34.0	13	−34.9	12	−34.7	13	−35.3
Trade (10)	10	−36.4	10	−35.5	10	−33.1	9	−33.2
Inventories (10)	10	−30.8	9	−29.4	9	−31.8	7	−33.5
Orders (14)	7	−21.8	7	−27.9	7	−24.8	7	−26.2
Consumption (5)	5	−37.1	5	−38.2	5	−38.0	5	−30.6
Money and credit (20)	17	72.1	16	66.8	16	73.3	17	66.2
Stock Prices (11)	4	−29.8	4	−27.8	4	−29.7	5	−27.5
Dividends and volume (3)	1	−55.6	1	−50.9	1	−54.2	1	−51.8
Interest rates (11)	11	132.0	11	107.9	11	121.2	11	112.3
Exchange rates (6)	3	63.6	3	53.1	3	63.3	3	53.6
Producer prices (16)	16	39.7	13	−23.9	15	46.5	12	2.3
Consumer prices (16)	14	−39.6	13	−39.5	14	−37.8	13	−37.7
Miscellaneous (11)	10	−31.0	9	−34.7	10	−30.1	10	−30.5
Total (214)	178	−32.4	171	−33.5	172	−31.8	168	−32.6

The table contains results for SupW tests for structural change in conditional volatility. Columns headed "#R" contain the number of rejections of the null hypothesis of constant conditional volatility at the 5% nominal significance level, where the procedure of Hansen (1997) is used to obtain approximate asymptotic p-values. Columns headed "$\Delta\sigma$" contain the median percent change in the conditional standard deviation for those series for which the SupW test statistic is significant. Numbers in parentheses following the series type denote the number of series tested. Columns headed "L" contain results obtained with a linear and time-invariant AR model for the conditional mean. Columns headed "SC" contain results obtained when allowing for a single structural change in the model for the conditional mean. Columns headed "NL" contain results obtained when allowing for different autoregressive parameters in expansions and recessions. Columns headed "NL-SC" contain results obtained when allowing for expansion-recession nonlinearity and a single structural change during expansions in the conditional mean.

Table 2: Tests for structural change and nonlinearity in conditional mean - percent rejections per type

	SC-L	NL	NL-SC
Production (24)	18	22	14
(Un)Employment (29)	20	28	16
Wages and salaries (7)	5	1	4
Construction (21)	5	14	1
Trade (10)	5	9	4
Inventories (10)	5	9	4
Orders (14)	9	11	7
Consumption (5)	4	5	4
Money and credit (20)	7	7	5
Stock Prices (11)	1	0	0
Dividends and volume (3)	2	0	2
Interest rates (11)	10	11	9
Exchange rates (6)	0	0	0
Producer prices (16)	13	10	12
Consumer prices (16)	16	9	14
Miscellaneous (11)	6	9	6
Total (214)	126	145	102

The table contains the number of rejections per type of series at the 5% nominal significance level. The column headed "SC-L" concerns results from SupW tests for a single structural change in the parameters in a linear AR(p) model. The column headed "NL" concerns results from Wald tests for differences in the AR parameters in business cycle expansions and recessions, defined using the ECRI-dated turning points. The column headed "NL-SC" concerns results from SupW tests for a single structural change in the parameters during expansions in a nonlinear autoregressive model. The procedure of Hansen (1997) is used to obtain approximate asymptotic p-values for the structural change tests.

Table 3: Tests for nonlinearity in conditional volatility - number of rejections and median percent change in standard deviation for groups

	L		SC		NL		NL-SC	
Group	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$
Production (24)	20	55.0	20	53.3	18	32.3	18	34.1
(Un)Employment (29)	21	45.1	19	50.8	13	36.9	14	40.5
Wages and salaries (7)	3	43.3	4	30.1	2	32.6	5	31.4
Construction (21)	19	50.6	19	45.8	14	43.3	15	42.8
Trade (10)	8	32.4	8	31.2	2	35.9	2	37.9
Inventories (10)	9	34.9	7	33.1	3	52.7	4	41.3
Orders (14)	8	42.3	8	40.8	6	29.9	6	34.2
Consumption (5)	3	50.8	4	45.8	1	40.9	3	28.1
Money and credit (20)	5	38.8	5	45.2	6	31.8	7	35.8
Stock Prices (11)	11	73.9	11	70.9	11	72.4	11	75.3
Dividends and volume (3)	2	65.5	2	63.3	2	62.5	2	63.7
Interest rates (11)	11	73.4	11	75.6	11	60.0	11	64.6
Exchange rates (6)	0	–	0	–	0	–	0	–
Producer prices (16)	8	50.4	10	37.5	7	51.7	7	64.6
Consumer prices (16)	13	46.5	12	37.4	12	36.7	13	39.6
Miscellaneous (11)	4	39.2	6	32.8	2	44.2	3	30.6
Total (214)	145	49.3	146	45.6	109	41.1	121	42.2

The table contains results for Wald tests for nonlinearity in conditional volatility. Columns headed "#R" contain the number of rejections at the 5% nominal significance level. Columns headed "$\Delta\sigma$" contain the median percent difference between the conditional standard deviations in recessions and expansions (as a percentage of the latter) for those series for which the Wald statistic is significant. Columns headed "L" contain results obtained with a linear and time-invariant AR model for the conditional mean. Columns headed "SC" contain results obtained when allowing for a single structural change in the model for the conditional mean. Columns headed "NL" contain results obtained when allowing for different autoregressive parameters in expansions and recessions. Columns headed "NL-SC" contain results obtained when allowing for expansion-recession nonlinearity and a single structural change during expansions in the conditional mean.

Table 4: Tests for structural change in conditional volatility during recessions and expansions - number of rejections and median percentage change in standard deviation for groups of series

	L				SC				NL				NL-SC			
	$\#R_E$	$\Delta\sigma_E$	$\#R_R$	$\Delta\sigma_R$	$\#R_E$	$\Delta\sigma_E$	$\#R_R$	$\Delta\sigma_R$	$\#R_E$	$\Delta\sigma_E$	$\#R_R$	$\Delta\sigma_R$	$\#R_E$	$\Delta\sigma_E$	$\#R_R$	$\Delta\sigma_R$
Production (24)	17	−31.6	8	−49.4	18	−34.4	5	92.9	16	−32.0	8	−53.4	16	−32.4	11	−52.1
(Un)Employment (29)	28	−37.3	12	−51.7	27	−37.1	15	−52.3	27	−36.0	9	−50.7	27	−34.7	12	−50.8
Wages and salaries (7)	7	−45.1	2	12.2	7	−47.3	3	−46.3	7	−45.1	2	−54.9	7	−46.0	2	−54.9
Construction (21)	9	−33.3	9	96.1	9	−33.7	8	97.3	9	−35.7	5	86.8	10	−33.7	5	86.8
Trade (10)	10	−34.6	2	100.8	10	−36.7	1	81.4	10	−35.3	0	–	10	−34.8	0	–
Inventories (10)	8	−28.4	4	69.2	7	−26.6	5	73.2	8	−27.9	2	105.9	5	−33.0	2	105.9
Orders (14)	4	50.3	7	76.5	4	12.7	9	72.3	4	9.5	5	84.4	7	−22.1	5	84.4
Consumption (5)	5	−35.0	0	–	4	−35.5	2	83.9	5	−35.1	0	–	3	−35.2	1	132.6
Money (20)	15	80.1	6	196.4	15	76.6	6	166.2	15	86.7	2	66.4	16	75.5	3	131.4
Stock prices (11)	0	–	3	67.4	0	–	3	−34.6	0	–	4	14.1	0	–	4	14.1
Dividends and volume (3)	1	−54.8	1	−61.5	1	−53.3	1	−78.1	1	−55.1	0	–	1	−55.4	0	–
Interest rates (11)	11	163.3	11	164.0	11	145.1	11	132.3	11	141.5	11	139.5	11	131.1	11	139.5
Exchange rates (6)	2	12.4	4	314.5	1	−43.7	4	332.2	3	58.6	4	286.2	2	10.3	4	286.2
Producer prices (16)	9	53.9	12	146.8	7	43.2	11	120.2	11	52.1	6	151.7	7	42.1	6	151.7
Consumer prices (16)	12	−39.0	9	95.5	11	−38.2	10	89.7	13	−37.5	4	82.5	11	−37.6	7	70.7
Miscellaneous (11)	9	−31.5	8	−56.1	8	−33.9	6	−55.8	9	−30.6	2	304.3	9	−32.4	2	304.3
Total (214)	147	−31.5	98	92.1	140	−33.8	100	88.3	149	−31.5	64	85.6	142	−32.0	75	79.8

The table contains results for SupW tests for structural change in conditional volatility during recessions and expansions separately, while allowing these to be different under the null hypothesis. Columns headed "$\#R_E$" ("$\#R_R$") contain the number of rejections at the 5% nominal significance level of the null hypothesis of constant conditional volatility during expansions (recessions), where the procedure of Hansen (1997) is used to obtain approximate asymptotic p-values. Columns headed "$\Delta\sigma_E$" ("$\Delta\sigma_R$") contain the median percent change in the conditional standard deviation in expansions (recessions) for those series for which the SupW test statistic is significant. Columns headed "L" contain results with a linear and time-invariant AR model for the conditional mean. Columns headed "SC" contain results obtained when allowing for a single structural change in the model for the conditional mean. Columns headed "NL" contain results obtained when allowing for different autoregressive parameters in expansions and recessions. Columns headed "NL-SC" contain results obtained when allowing for different autoregressive parameters in expansions and recessions and for a single structural change in the parameters during expansions.

Table 5: Tests for multiple structural changes in conditional volatility - linear model with constant parameters for conditional mean

	1 change		2 changes		3 changes		Overall		Before 1981		After 1981	
	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#B	$\Delta\sigma$	#B	$\Delta\sigma$
Production (24)	19	−36.1	2	−14.7	0	–	21	−32.8	4	52.9	19	−36.3
(Un)Employment (29)	23	−38.2	4	−15.3	1	−13.0	28	−36.3	12	−31.9	22	−40.8
Wages and salaries (7)	6	−47.4	1	−49.3	0	–	7	−37.2	0	–	8	−42.5
Construction (21)	8	−32.7	5	−11.0	1	−50.4	14	−36.1	8	46.8	13	−35.0
Trade (10)	8	−36.4	2	−8.6	0	–	10	−36.1	4	7.4	8	−36.5
Inventories (10)	8	−30.8	2	−1.6	0	–	10	−35.3	3	39.1	9	−32.9
Orders (14)	1	−35.0	4	11.3	1	5.7	6	−34.6	9	36.7	3	−35.0
Consumption (5)	2	−34.8	3	−32.5	0	–	5	−33.9	1	60.0	7	−37.1
Money (20)	10	73.8	6	25.6	1	1505.0	17	−32.0	14	87.7	11	38.0
Stock prices	3	−30.6	1	12.7	0	–	4	−31.7	3	−29.1	2	−32.0
Dividends and volume (3)	0	–	1	−67.7	0	–	1	−31.9	0	–	2	−43.1
Interest rates (11)	1	−54.3	0	–	10	91.1	11	−30.8	18	141.4	13	−52.5
Exchange rates (6)	2	67.6	1	−27.7	0	–	3	−30.3	2	67.6	2	−2.1
Producer prices (16)	6	−32.3	8	21.7	2	70.6	16	−28.9	19	74.9	9	−34.4
Consumer prices (16)	6	−45.0	6	10.6	2	−52.6	14	−29.0	10	68.8	14	−43.2
Miscellaneous (11)	6	−33.9	4	1.7	0	–	10	−29.1	5	63.1	9	−34.7
Total (214)	109	−35.0	50	−6.1	18	14.4	177	−29.1	112	63.4	151	−36.4

The table contains results for sequential tests for multiple structural changes in conditional volatility, when using a linear AR(p) model with constant parameters for the conditional mean. In the blocks headed "m change(s)", $m = 1, 2, 3$, columns headed "#R" contain the number of series for which m changes in variability are found based upon the SupW test, while columns headed "$\Delta\sigma$" contain the median percent "net" change in the standard deviation across these series, that is the difference between the standard deviations after the final change and before the first change. The column headed "Overall - $\Delta\sigma$" contain the median percent "net" change in the standard deviation across all series for which at least one change is found. In the blocks headed "Before (After) 1981", columns headed "#B" contain the number of breaks which is dated before (after) January 1981, while columns headed "$\Delta\sigma$" contain the median percent change in the standard deviation across these breaks.

Table 6: Tests for multiple structural changes in conditional volatility - linear model with structural change for conditional mean

	1 change		2 changes		3 changes		Overall		Before 1981		After 1981	
	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#B	$\Delta\sigma$	#B	$\Delta\sigma$
Production (24)	18	−38.5	3	−13.0	0	–	21	−37.6	4	42.1	20	−38.5
(Un)Employment (29)	26	−37.3	3	−28.6	0	–	29	−37.3	10	−36.4	22	−37.6
Wages and salaries (7)	5	−37.7	2	−50.2	0	–	7	−37.4	1	−26.8	8	−41.0
Construction (21)	8	−33.0	4	−25.8	1	−22.3	13	−36.9	7	42.6	12	−35.2
Trade (10)	7	−40.8	2	−14.2	1	−37.9	10	−36.9	6	3.4	8	−40.3
Inventories (10)	7	−31.1	2	−4.3	0	–	9	−35.5	3	38.3	8	−33.6
Orders (14)	3	−27.9	2	23.0	2	2.1	7	−34.9	7	50.4	6	−31.1
Consumption (5)	2	−38.9	3	−25.7	0	–	5	−34.9	2	88.5	6	−39.8
Money (20)	10	63.4	4	193.3	2	689.8	16	−32.9	13	98.4	11	43.6
Stock Prices	4	−27.8	0	–	0	–	4	−32.7	1	−25.3	3	−29.4
Dividends and volume (3)	0	–	1	−64.3	0	–	1	−32.8	0	–	2	−40.2
Interest rates (11)	1	−53.3	0	–	10	83.8	11	−30.5	20	121.6	11	−54.9
Exchange rates (6)	2	56.2	1	−30.2	0	–	3	−30.0	2	56.2	2	−2.5
Producer prices (16)	6	−31.2	6	13.0	1	48.0	13	−29.8	10	68.1	11	−31.5
Consumer prices (16)	7	−42.8	6	3.4	0	–	13	−29.9	7	45.2	12	−40.3
Miscellaneous (11)	5	−34.7	4	−26.7	0	–	9	−30.2	5	51.6	8	−33.7
Total (214)	111	−34.9	43	−10.4	17	50.0	171	−30.2	98	59.7	150	−37.7

The table contains results for sequential tests for multiple structural changes in conditional volatility, when using a linear AR(p) model with a single structural change for the conditional mean. In the blocks headed "m change(s)", $m = 1, 2, 3$, columns headed "#R" contain the number of series for which m changes in variability are found based upon the SupW test, while columns headed "$\Delta\sigma$" contain the median percent "net" change in the standard deviation across these series, that is the difference between the standard deviations after the final change and before the first change. The column headed "Overall - $\Delta\sigma$" contain the median percent "net" change in the standard deviation across all series for which at least one change is found. In the blocks headed "Before (After) 1981", columns headed "#B" contain the number of breaks which is dated before (after) January 1981, while columns headed "$\Delta\sigma$" contain the median percent change in the standard deviation across these breaks.

Table 7: Tests for multiple structural changes in conditional volatility - nonlinear model with constant parameters for conditional mean

	1 change		2 changes		3 changes		Overall		Before 1981		After 1981	
	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#B	$\Delta\sigma$	#B	$\Delta\sigma$
Production (24)	18	−34.2	2	−12.1	0	–	20	−33.3	4	39.0	18	−34.8
(Un)Employment (29)	24	−36.9	4	−12.2	0	–	28	−34.2	11	−33.4	21	−38.4
Wages and salaries (7)	7	−43.6	0	–	0	–	7	−35.3	0	–	7	−43.6
Construction (21)	7	−35.0	4	−7.3	1	−50.2	12	−34.9	7	53.2	11	−37.8
Trade (10)	7	−33.4	2	−6.9	1	−37.7	10	−34.7	8	−22.7	6	−39.4
Inventories (10)	8	−31.1	1	−13.7	0	–	9	−34.1	2	12.3	8	−32.8
Orders (14)	4	−29.2	3	31.7	0	–	7	−33.4	6	19.7	4	−29.2
Consumption (5)	2	−35.9	3	−31.5	0	–	5	−33.1	1	57.6	7	−37.0
Money (20)	9	79.5	5	28.3	2	548.9	16	−31.6	13	97.0	12	35.1
Stock prices	3	−29.9	1	13.2	0	–	4	−31.4	3	−29.4	2	−31.8
Dividends and volume (3)	0	–	1	−65.5	0	–	1	−31.5	0	–	2	−41.2
Interest rates (11)	1	−51.4	0	–	10	85.4	11	−29.7	19	129.3	12	−50.8
Exchange rates (6)	2	66.7	1	−28.2	0	–	3	−29.4	2	66.7	2	−3.3
Producer prices (16)	8	−30.8	6	32.7	1	125.5	15	−29.0	16	25.4	7	−31.8
Consumer prices (16)	7	−44.4	6	7.5	1	−50.7	14	−29.3	8	56.3	14	−43.1
Miscellaneous (11)	7	−30.5	3	−2.4	0	–	10	−29.5	4	54.9	9	−30.6
Total (214)	114	−33.5	42	−0.4	16	51.3	172	−29.5	104	61.6	142	−36.6

The table contains results for sequential tests for multiple structural changes in conditional volatility, when using a nonlinear AR(p) model with constant parameters for the conditional mean. In the blocks headed "m change(s)", $m = 1, 2, 3$, columns headed "#R" contain the number of series for which m changes in variability are found based upon the SupW test, while columns headed "$\Delta\sigma$" contain the median percent "net" change in the standard deviation across these series, that is the difference between the standard deviations after the final change and before the first change. The column headed "Overall - $\Delta\sigma$" contain the median percent "net" change in the standard deviation across all series for which at least one change is found. In the blocks headed "Before (After) 1981", columns headed "#B" contain the number of breaks which is dated before (after) January 1981, while columns headed "$\Delta\sigma$" contain the median percent change in the standard deviation across these breaks.

Table 8: Tests for multiple structural changes in conditional volatility - nonlinear model with structural change during expansions for conditional mean

	1 change		2 changes		3 changes		Overall		Before 1981		After 1981	
	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#R	$\Delta\sigma$	#B	$\Delta\sigma$	#B	$\Delta\sigma$
Production (24)	18	−35.0	2	72.4	0	–	20	−34.6	4	42.9	18	−35.3
(Un)Employment (29)	25	−36.5	3	−9.4	0	–	28	−34.6	11	−30.7	20	−38.0
Wages and salaries (7)	7	−45.0	0	–	0	–	7	−35.3	0	–	7	−45.0
Construction (21)	8	−36.1	5	−12.0	0	–	13	−35.3	6	47.9	12	−38.3
Trade (10)	7	−34.3	1	−5.3	1	−35.2	9	−35.2	4	8.2	8	−36.5
Inventories (10)	5	−30.9	2	−13.5	0	–	7	−34.7	2	42.5	7	−33.5
Orders (14)	5	−26.8	2	17.4	0	–	7	−34.3	4	47.1	5	−30.8
Consumption (5)	1	−40.3	4	−25.5	0	–	5	−34.3	2	36.3	7	−37.9
Money (20)	11	60.9	4	180.0	2	641.1	17	−30.8	14	76.4	11	43.6
Stock prices	5	−27.5	0	–	0	–	5	−30.6	1	−23.5	4	−28.1
Dividends and volume (3)	0	–	1	−69.3	0	–	1	−30.7	1	−42.3	1	−46.8
Interest rates (11)	1	−52.7	0	–	10	85.0	11	−29.4	20	113.6	11	−52.7
Exchange rates (6)	2	60.6	1	−31.4	0	–	3	−29.4	2	60.6	2	−4.2
Producer prices (16)	6	−31.3	5	26.7	1	−9.3	12	−29.0	10	51.6	9	−31.8
Consumer prices (16)	9	−37.7	4	−12.9	0	–	13	−29.4	6	40.7	11	−39.2
Miscellaneous (11)	8	−30.5	2	80.5	0	–	10	−29.4	3	65.9	9	−32.9
Total (214)	118	−33.9	36	−6.9	14	54.3	168	−29.4	90	59.5	142	−35.9

The table contains results for sequential tests for multiple structural changes in conditional volatility, when using a nonlinear AR(p) model with a single structural change during expansions for the conditional mean. In the blocks headed "m change(s)", $m = 1, 2, 3$, columns headed "#R" contain the number of series for which m changes in variability are found based upon the SupW test, while columns headed "$\Delta\sigma$" contain the median percent "net" change in the standard deviation across these series, that is the difference between the standard deviations after the final change and before the first change. The column headed "Overall - $\Delta\sigma$" contain the median percent "net" change in the standard deviation across all series for which at least one change is found. In the blocks headed "Before (After) 1981", columns headed "#B" contain the number of breaks which is dated before (after) January 1981, while columns headed "$\Delta\sigma$" contain the median percent change in the standard deviation across these breaks.

Table A.1: Tests for structural change in conditional volatility

Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value
Production							
IP	3	8.15	9.51	6.08	−36.10	1984.03	4.30E-005
		[0.36]	[0.45]	[0.55]	[6.53]	[1983.03,1989.01]	
IPP	3	8.39	8.99	5.75	−36.08	1992.07	0.00273
		[0.33]	[0.36]	[0.76]	[8.85]	[1991.04,1996.06]	
IPF	3	9.06	9.60	6.70	−30.26	1992.07	0.0261
		[0.36]	[0.40]	[0.83]	[9.09]	[1990.06,1998.02]	
IPC	0	10.62	12.03	8.55	−28.95	1983.10	0.00123
		[0.43]	[0.55]	[0.66]	[6.38]	[1981.10,1990.04]	
IPCD	1	26.39	27.89	24.54	−12.02	1982.02	0.859
		[1.28]	[1.72]	[1.91]	[8.72]	[1960.02,1999.12]	
IPCN	2	8.67	9.20	7.03	−23.56	1990.03	0.0340
		[0.31]	[0.35]	[0.61]	[7.27]	[1986.10,1997.05]	
IPE	5	12.76	13.59	9.25	−31.93	1992.04	0.0109
		[0.50]	[0.55]	[1.13]	[8.77]	[1990.02,1997.01]	
IPI	3	10.21	11.11	6.34	−42.93	1992.06	0.000115
		[0.41]	[0.45]	[0.93]	[8.68]	[1991.12,1995.04]	
IPM	12	10.52	12.90	6.87	−46.71	1984.03	2.33E-009
		[0.47]	[0.58]	[0.71]	[6.01]	[1983.09,1986.12]	
IPMD	12	15.03	18.12	10.36	−42.86	1984.01	4.70E-007
		[0.69]	[0.86]	[1.06]	[6.42]	[1983.07,1987.09]	
IPMND	10	12.38	14.15	9.63	−31.90	1984.04	0.000371
		[0.52]	[0.65]	[0.81]	[6.51]	[1982.08,1989.10]	
IPMFG	3	8.91	10.43	6.63	−36.41	1984.01	6.82E-005
		[0.40]	[0.51]	[0.62]	[6.71]	[1982.12,1989.01]	
IPD	3	11.74	13.47	9.23	−31.51	1983.09	0.00378
		[0.56]	[0.72]	[0.87]	[7.42]	[1981.04,1991.03]	
IPN	3	8.25	9.07	5.69	−37.26	1990.04	0.000429
		[0.34]	[0.38]	[0.68]	[7.97]	[1989.08,1994.05]	
IPMIN	1	13.27	14.66	10.42	−28.87	1986.11	0.00814
		[0.57]	[0.68]	[0.98]	[7.47]	[1984.02,1993.11]	
IPUT	10	17.61	11.97	20.51	71.37	1973.08	1.65E-006
		[0.76]	[1.27]	[0.91]	[19.65]	[1970.02,1974.03]	
IPX	3	638.61	778.18	495.35	−36.34	1984.03	9.59E-005
		[31.17]	[42.60]	[43.16]	[6.55]	[1983.03,1988.12]	
IPXMCA	3	718.35	845.21	527.05	−37.64	1984.01	2.19E-005
		[32.10]	[40.36]	[49.56]	[6.58]	[1982.12,1988.07]	
IPXDCA	3	879.64	1054.10	711.43	−32.51	1983.09	0.00460
		[47.07]	[66.02]	[64.82]	[7.46]	[1981.05,1990.07]	
IPXNCA	3	686.93	781.91	468.31	−40.11	1990.04	4.76E-005
		[30.82]	[35.84]	[54.37]	[7.48]	[1989.09,1993.07]	
IPXMIN	1	1204.85	1399.24	939.65	−32.85	1986.06	0.00141
		[57.59]	[74.26]	[86.74]	[7.15]	[1984.10,1991.12]	
IPXUT	6	1645.15	1340.17	1852.48	38.23	1980.12	0.0195
		[78.12]	[121.13]	[99.88]	[14.55]	[1973.05,1984.01]	
GMPYQ	9	4.43	4.80	3.74	−22.05	1986.03	0.130
		[0.20]	[0.24]	[0.34]	[8.05]	[1979.12,1999.09]	
GMYXPQ	9	4.25	3.56	4.51	26.48	1970.09	0.161
		[0.17]	[0.33]	[0.20]	[12.97]	[1960.02,1976.09]	
(Un)employment							
LHEL	12	2208.16	1595.22	2498.60	56.63	1972.11	2.81E-005
		[87.79]	[151.04]	[103.97]	[16.20]	[1969.01,1974.01]	
LHELX	4	47.83	57.50	37.45	−34.86	1980.09	3.08E-005
		[2.09]	[2.84]	[2.94]	[6.04]	[1979.06,1985.11]	
LHEM	8	3.31	3.80	2.39	−37.09	1986.02	1.59E-005
		[0.14]	[0.16]	[0.23]	[6.54]	[1985.01,1990.01]	
LHNAG	8	3.13	3.54	2.40	−32.08	1985.09	0.000177
		[0.12]	[0.15]	[0.20]	[6.37]	[1984.01,1990.05]	
LHUR	12	188.87	201.53	161.64	−19.79	1987.04	0.182
		[7.81]	[9.40]	[13.78]	[7.79]	[1982.03,1999.12]	
LHU680	7	532.94	781.01	488.34	−37.47	1966.02	3.65E-006
		[20.31]	[50.53]	[21.43]	[4.89]	[1964.12,1968.08]	
LHU5	12	50.07	61.51	42.99	−30.11	1975.04	0.000250
		[2.07]	[3.27]	[2.57]	[5.60]	[1972.09,1980.10]	
LHU14	5	61.15	74.22	52.86	−28.78	1975.07	6.84E-005
		[2.25]	[3.53]	[2.81]	[5.08]	[1973.08,1980.11]	
LHU15	4	60.04	80.29	52.17	−35.02	1971.03	1.50E-007
		[2.21]	[4.04]	[2.52]	[4.53]	[1969.09,1973.11]	
LHU26	4	92.84	110.56	80.36	−27.31	1976.07	0.000132
		[3.31]	[5.04]	[4.23]	[5.06]	[1973.07,1980.12]	
LHU27	7	78.28	102.36	61.45	−39.97	1976.06	1.33E-009
		[3.16]	[4.71]	[3.94]	[4.73]	[1975.08,1979.06]	
LHCH	12	227.09	213.53	301.34	41.13	1989.09	0.0113
		[9.36]	[10.04]	[23.50]	[12.85]	[1985.07,1992.05]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value
LPNAG	4	1.86	2.43	1.06	−56.51	1983.07	6.78E-016
		[0.08]	[0.10]	[0.12]	[5.38]	[1983.04,1985.04]	
LP	3	2.13	2.80	1.17	−58.16	1983.07	7.97E-015
		[0.10]	[0.13]	[0.15]	[5.71]	[1983.04,1985.06]	
LPGD	3	3.82	4.98	2.06	−58.64	1984.02	3.01E-012
		[0.20]	[0.24]	[0.30]	[6.38]	[1983.11,1986.05]	
LPMI	12	8.53	9.56	5.60	−41.36	1989.08	0.00243
		[0.45]	[0.52]	[0.88]	[9.71]	[1988.11,1995.01]	
LPCC	5	10.55	13.58	5.90	−56.53	1984.03	2.14E-010
		[0.57]	[0.70]	[0.86]	[6.72]	[1983.12,1986.10]	
LPEM	3	3.37	4.47	1.74	−61.00	1983.10	2.41E-010
		[0.20]	[0.25]	[0.30]	[7.14]	[1983.07,1986.06]	
LPED	5	4.65	6.09	2.54	−58.22	1983.10	1.66E-007
		[0.31]	[0.38]	[0.46]	[8.06]	[1983.06,1987.05]	
LPEN	2	2.76	3.66	1.55	−57.48	1982.11	5.14E-016
		[0.13]	[0.16]	[0.18]	[5.39]	[1982.08,1984.08]	
LPSP	6	1.47	1.78	1.01	−42.92	1984.02	1.94E-008
		[0.06]	[0.08]	[0.09]	[5.88]	[1983.03,1986.10]	
LPTU	12	4.66	5.77	3.62	−37.30	1979.06	0.000464
		[0.25]	[0.36]	[0.35]	[7.20]	[1976.03,1984.08]	
LPT	12	2.39	2.86	1.58	−44.79	1985.03	5.21E-008
		[0.11]	[0.13]	[0.17]	[6.34]	[1984.08,1988.03]	
LPFR	10	1.39	1.59	1.16	−27.37	1981.06	0.000565
		[0.05]	[0.07]	[0.08]	[5.69]	[1979.01,1987.06]	
LPS	10	1.88	2.21	1.41	−36.26	1983.07	4.33E-006
		[0.08]	[0.10]	[0.12]	[5.95]	[1982.06,1987.07]	
LPGOV	12	2.44	2.82	1.13	−60.11	1991.01	1.08E-006
		[0.13]	[0.14]	[0.27]	[9.75]	[1990.11,1993.06]	
LW	4	121.30	146.42	90.44	−38.23	1984.04	1.40E-005
		[5.66]	[7.40]	[8.20]	[6.41]	[1982.10,1987.12]	
LPHRM	12	236.48	289.27	171.12	−40.84	1982.02	7.27E-006
		[11.61]	[15.19]	[16.90]	[6.62]	[1981.06,1986.11]	
LPMOSA	12	137.65	160.66	108.42	−32.51	1982.05	0.000569
		[6.21]	[8.15]	[9.19]	[6.67]	[1980.04,1988.06]	
Wages and salaries							
LEH	12	2.41	2.94	1.18	−59.97	1989.05	1.04E-012
		[0.11]	[0.13]	[0.19]	[6.75]	[1989.03,1990.11]	
LEHCC	11	5.67	6.41	3.87	−39.56	1988.04	9.60E-005
		[0.25]	[0.29]	[0.46]	[7.66]	[1987.01,1992.03]	
LEHM	11	3.34	4.09	2.42	−40.74	1982.02	7.76E-007
		[0.15]	[0.20]	[0.22]	[6.11]	[1981.01,1985.10]	
LEHTU	11	4.26	5.32	2.97	−44.22	1984.02	7.38E-008
		[0.20]	[0.26]	[0.29]	[6.08]	[1983.08,1987.04]	
LEHTT	9	2.79	3.50	2.13	−39.18	1981.11	6.97E-008
		[0.12]	[0.16]	[0.16]	[5.33]	[1980.12,1984.11]	
LEHFR	12	4.62	5.51	2.73	−50.49	1988.11	1.02E-010
		[0.19]	[0.22]	[0.33]	[6.25]	[1988.06,1990.07]	
LEHS	12	3.20	3.93	1.57	−60.10	1989.02	1.82E-015
		[0.14]	[0.16]	[0.23]	[6.11]	[1988.12,1990.05]	
Construction							
HSFR	12	85.66	92.09	58.65	−36.31	1992.04	0.00291
		[3.49]	[3.83]	[7.85]	[8.92]	[1991.01,1996.04]	
HSNE	4	185.62	202.31	160.03	−20.90	1984.03	0.0759
		[7.51]	[9.58]	[11.86]	[6.96]	[1979.05,1997.04]	
HSMW	3	163.80	175.89	121.25	−31.06	1991.02	0.0160
		[6.89]	[7.72]	[14.49]	[8.77]	[1989.07,1997.03]	
HSSOU	12	102.12	112.04	86.91	−22.43	1984.03	0.0333
		[4.03]	[5.12]	[6.35]	[6.68]	[1978.11,1993.10]	
HSWST	2	134.95	144.75	118.54	−18.11	1985.01	0.0975
		[4.78]	[6.00]	[7.77]	[6.35]	[1977.12,1997.03]	
HSBR	2	68.85	75.99	43.45	−42.82	1991.03	0.000115
		[2.98]	[3.29]	[6.22]	[8.55]	[1990.09,1994.07]	
HSBNE	4	124.46	138.79	101.40	−26.94	1985.01	0.0109
		[5.34]	[6.71]	[8.51]	[7.08]	[1981.09,1992.12]	
HSBMW	12	110.45	124.10	68.70	−44.64	1990.05	6.38E-005
		[5.14]	[5.78]	[10.12]	[8.55]	[1989.09,1993.09]	
HSBSOU	12	81.58	64.74	86.28	33.27	1969.07	0.114
		[3.44]	[7.31]	[3.86]	[16.19]	[1961.02,1973.03]	
HSBWST	1	101.01	109.44	83.37	−23.82	1987.05	0.0606
		[4.30]	[5.18]	[7.49]	[7.74]	[1984.04,1998.04]	
HNS	2	84.70	76.25	91.24	19.66	1979.09	0.231
		[3.29]	[4.95]	[4.36]	[9.65]	[1964.02,1989.01]	
HNSNE	12	190.20	149.65	202.64	35.41	1980.02	0.123
		[8.83]	[18.03]	[9.99]	[17.63]	[1974.02,1983.01]	
HNSMW	11	135.69	151.02	125.66	−16.79	1984.04	0.481
		[6.79]	[10.74]	[8.68]	[8.25]	[1974.02,1999.12]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value
HNSSOU	12	107.95	132.56	90.73	−31.55	1984.09	0.000747
		[5.06]	[7.67]	[6.41]	[6.25]	[1982.11,1988.11]	
HNSWST	12	133.70	142.55	92.51	−35.10	1995.05	0.0459
		[6.53]	[7.09]	[15.31]	[11.21]	[1994.02,1999.06]	
HNR	4	590.80	639.77	412.80	−35.48	1992.03	0.00447
		[25.55]	[28.40]	[54.15]	[8.94]	[1990.08,1996.05]	
HMOB	3	53.68	68.06	38.23	−43.82	1980.09	4.90E-010
		[2.29]	[3.04]	[3.15]	[5.26]	[1980.01,1983.06]	
CONTC	1	18.35	21.72	14.30	−34.18	1984.02	3.64E-005
		[0.78]	[1.03]	[1.13]	[6.05]	[1982.07,1988.02]	
CONPC	6	18.63	22.68	15.03	−33.75	1981.06	2.46E-005
		[0.79]	[1.12]	[1.06]	[5.71]	[1979.12,1985.09]	
CONQC	2	35.52	41.03	29.43	−28.28	1983.05	0.00245
		[1.52]	[2.06]	[2.17]	[6.40]	[1980.07,1989.06]	
CONDO9	9	95.03	69.67	101.47	45.64	1968.02	0.0123
		[3.79]	[8.32]	[4.19]	[18.41]	[1962.09,1969.09]	
Trade							
MSMTQ	12	11.74	12.58	8.03	−36.18	1992.08	0.000674
		[0.43]	[0.46]	[0.98]	[8.11]	[1991.09,1995.11]	
MSMQ	12	15.75	17.91	13.41	−25.12	1980.10	0.00296
		[0.60]	[0.81]	[0.85]	[5.83]	[1977.10,1988.04]	
MSDQ	12	22.64	25.11	19.12	−23.86	1983.06	0.0122
		[0.87]	[1.13]	[1.34]	[6.35]	[1979.09,1991.12]	
MSNQ	3	13.01	14.48	11.01	−23.95	1983.01	0.00636
		[0.48]	[0.63]	[0.73]	[6.01]	[1980.01,1991.02]	
WTQ	3	15.91	18.04	11.40	−36.85	1987.02	2.39E-005
		[0.64]	[0.76]	[1.10]	[6.67]	[1986.01,1990.11]	
WTDQ	5	18.07	19.20	12.16	−36.67	1993.07	0.00365
		[0.70]	[0.75]	[1.71]	[9.25]	[1992.04,1997.01]	
WTNQ	4	21.42	24.04	15.89	−33.88	1987.02	8.79E-005
		[0.83]	[0.99]	[1.43]	[6.55]	[1985.11,1991.04]	
RTQ	11	13.09	14.99	8.96	−40.24	1987.05	1.17E-005
		[0.56]	[0.66]	[0.98]	[7.04]	[1986.08,1991.01]	
RTDQ	2	29.41	33.23	15.96	−51.98	1991.02	2.74E-006
		[1.37]	[1.51]	[2.83]	[8.79]	[1990.12,1993.09]	
RTNQ	12	8.97	10.95	6.94	−36.56	1980.04	2.85E-008
		[0.34]	[0.45]	[0.46]	[4.96]	[1979.04,1983.06]	
Inventories							
IVMTQ	3	3.96	4.26	2.87	−32.76	1991.03	0.00110
		[0.14]	[0.16]	[0.30]	[7.52]	[1989.10,1995.02]	
IVMFGQ	12	4.15	4.55	3.49	−23.23	1985.01	0.0160
		[0.16]	[0.19]	[0.25]	[6.42]	[1981.04,1993.06]	
IVMFDQ	12	5.24	6.46	4.76	−26.27	1971.03	0.00469
		[0.21]	[0.39]	[0.24]	[5.82]	[1968.03,1979.01]	
IVMFNQ	2	5.31	5.84	4.22	−27.67	1986.12	0.00269
		[0.20]	[0.24]	[0.34]	[6.60]	[1984.05,1992.09]	
IVWRQ	12	8.07	9.29	6.00	−35.43	1985.02	8.17E-006
		[0.32]	[0.39]	[0.50]	[6.06]	[1983.11,1988.11]	
IVRRQ	12	8.57	9.37	6.66	−28.90	1988.01	0.00364
		[0.33]	[0.39]	[0.60]	[7.08]	[1985.04,1993.08]	
IVSRQ	12	16.62	17.80	11.32	−36.40	1992.09	0.00130
		[0.63]	[0.68]	[1.45]	[8.50]	[1991.09,1996.03]	
IVSRMQ	12	24.61	26.25	16.79	−36.06	1993.01	0.00460
		[0.98]	[1.06]	[2.32]	[9.22]	[1992.03,1997.02]	
IVSRWQ	2	20.64	14.78	21.66	46.55	1965.12	0.0216
		[0.76]	[1.97]	[0.82]	[20.27]	[1961.06,1967.08]	
IVSRRQ	5	20.15	21.27	14.16	−33.42	1993.08	0.0465
		[0.89]	[0.96]	[2.20]	[10.78]	[1992.05,1999.06]	
Orders							
MOCMQ	12	27.84	29.94	19.47	−34.96	1991.12	0.00186
		[1.08]	[1.19]	[2.37]	[8.32]	[1990.12,1995.12]	
MDOQ	6	36.75	38.44	28.40	−26.12	1993.03	0.0736
		[1.36]	[1.48]	[3.29]	[9.01]	[1990.12,1999.11]	
MSONDQ	9	74.99	46.01	80.89	75.81	1966.10	0.000151
		[2.93]	[6.97]	[3.14]	[27.49]	[1964.02,1967.04]	
MO	6	22.24	23.22	17.43	−24.92	1993.03	0.0807
		[0.80]	[0.87]	[1.92]	[8.73]	[1990.10,1999.12]	
MOWU	6	31.77	33.18	24.84	−25.15	1993.03	0.0872
		[1.16]	[1.26]	[2.80]	[8.91]	[1990.05,1999.12]	
MDO	6	36.50	38.45	28.71	−25.35	1991.12	0.0498
		[1.34]	[1.49]	[2.97]	[8.24]	[1989.08,1998.12]	
MDUWU	6	38.49	40.05	30.85	−22.97	1993.03	0.159
		[1.41]	[1.54]	[3.42]	[9.03]	[1989.08,1999.12]	
MNO	12	13.38	14.27	9.36	−34.42	1992.09	0.00731
		[0.54]	[0.59]	[1.24]	[9.13]	[1991.06,1997.02]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value
MNOU	6	20.74	22.61	18.72	−17.22	1980.10	0.0899
		[0.72]	[1.00]	[1.04]	[5.87]	[1974.04,1995.03]	
MU	3	7.89	8.89	7.58	−14.72	1969.06	0.437
		[0.29]	[0.60]	[0.33]	[6.89]	[1960.02,1990.09]	
MDU	3	8.22	9.23	7.80	−15.44	1971.09	0.301
		[0.31]	[0.56]	[0.36]	[6.48]	[1960.02,1989.10]	
MNU	12	17.65	19.77	15.45	−21.81	1980.05	0.0205
		[0.67]	[0.93]	[0.95]	[6.04]	[1975.07,1990.02]	
MPCON	5	77.12	51.09	83.55	63.53	1967.12	3.63E-005
		[2.72]	[5.96]	[2.97]	[19.95]	[1965.04,1968.09]	
MPCONQ	9	77.21	53.70	83.03	54.61	1967.12	0.000144
		[2.61]	[5.74]	[2.86]	[17.36]	[1965.01,1969.01]	
Consumption							
GMCQ	8	6.30	7.07	4.45	−37.08	1988.04	8.58E-005
		[0.26]	[0.30]	[0.47]	[7.18]	[1987.02,1992.02]	
GMCDQ	8	30.06	32.77	20.29	−38.09	1991.04	0.00189
		[1.33]	[1.47]	[2.80]	[8.98]	[1990.09,1995.10]	
GMCNQ	12	7.41	8.44	5.70	−32.45	1984.11	0.000135
		[0.30]	[0.37]	[0.47]	[6.30]	[1982.11,1989.05]	
GMCSQ	10	3.75	2.84	4.14	45.75	1971.11	0.00147
		[0.15]	[0.27]	[0.18]	[15.26]	[1966.08,1973.08]	
GMCANQ	5	80.43	87.76	52.66	−39.99	1991.08	0.00293
		[3.78]	[4.19]	[8.15]	[9.72]	[1991.01,1996.04]	
Money and credit							
FM1	9	4.49	3.44	5.46	58.62	1979.03	4.60E-007
		[0.18]	[0.25]	[0.24]	[13.72]	[1975.11,1980.08]	
FM2	12	2.38	1.47	2.55	73.32	1966.04	0.00260
		[0.10]	[0.26]	[0.11]	[31.14]	[1962.09,1966.09]	
FM3	8	2.58	1.52	2.77	81.90	1966.04	0.000110
		[0.10]	[0.25]	[0.11]	[30.34]	[1963.11,1966.10]	
FML	12	3.38	2.93	3.81	29.90	1978.10	0.00377
		[0.12]	[0.17]	[0.16]	[9.26]	[1972.01,1982.08]	
FM2DQ	10	3.01	2.31	3.25	40.47	1970.01	0.0131
		[0.12]	[0.24]	[0.14]	[15.69]	[1963.08,1972.02]	
FMFBA	11	2.60	2.71	2.45	−9.66	1983.03	0.887
		[0.10]	[0.13]	[0.16]	[7.35]	[1960.02,1999.12]	
FMBASE	12	4.02	3.55	4.48	26.40	1979.09	0.0443
		[0.16]	[0.22]	[0.22]	[10.12]	[1967.11,1985.04]	
FMRRA	11	10.80	9.02	11.32	25.41	1968.12	0.141
		[0.38]	[0.80]	[0.43]	[12.17]	[1960.02,1973.09]	
FMRNBA	1	17.90	11.50	19.79	72.11	1969.02	0.00161
		[0.89]	[1.83]	[0.99]	[28.67]	[1964.05,1969.06]	
FMRNBC	1	15.77	10.46	17.24	64.81	1968.01	0.00196
		[0.72]	[1.52]	[0.80]	[25.20]	[1963.10,1968.09]	
FCLS	2	3.97	3.71	5.12	37.95	1995.02	0.0437
		[0.19]	[0.20]	[0.43]	[13.75]	[1987.11,1997.04]	
FCSGV	3	10.10	11.45	8.71	−23.92	1987.03	0.0677
		[0.49]	[0.68]	[0.69]	[7.56]	[1983.02,1995.10]	
FCLRE	3	2.92	2.58	4.76	84.69	1995.11	1.10E-005
		[0.16]	[0.17]	[0.39]	[19.44]	[1992.08,1996.04]	
FCLIN	3	4.07	3.63	6.52	79.41	1996.01	1.08E-005
		[0.21]	[0.22]	[0.52]	[17.92]	[1994.01,1996.10]	
FCLNBF	1	19.57	16.36	24.06	47.11	1985.09	0.00357
		[1.04]	[1.32]	[1.56]	[15.21]	[1981.09,1987.06]	
FCLNQ	7	8.91	5.93	9.89	66.88	1969.12	1.27E-005
		[0.35]	[0.68]	[0.39]	[20.11]	[1966.12,1970.10]	
FCLBMC	8	30078.66	10227.39	49358.08	382.61	1979.09	2.16E-040
		[1692.39]	[2047.34]	[2017.64]	[98.60]	[1978.10,1979.10]	
CCI30M	12	85.17	48.99	107.86	120.19	1973.10	9.34E-011
		[4.29]	[6.54]	[5.18]	[31.25]	[1971.06,1973.12]	
CCINT	8	2373329.58	623489.93	2796974.96	348.60	1979.11	9.54E-008
		[154390.63]	[325846.54]	[160330.16]	[235.85]	[1979.07,1979.11]	
CCINV	7	1187054.24	493109.54	1549696.31	214.27	1982.10	6.25E-012
		[75009.75]	[115266.29]	[83325.70]	[75.38]	[1981.09,1982.12]	
Stock prices							
FSNCOM	2	37.37	39.67	29.30	−26.13	1991.02	0.0658
		[1.53]	[1.72]	[3.23]	[8.76]	[1987.06,1998.12]	
FSNIN	2	39.80	43.73	29.08	−33.51	1991.02	0.00639
		[1.83]	[2.10]	[3.47]	[8.56]	[1989.04,1995.12]	
FSNTR	2	56.25	61.22	42.51	−30.56	1991.03	0.00552
		[2.30]	[2.64]	[4.39]	[7.77]	[1988.12,1995.09]	
FSNUT	5	35.21	44.64	31.66	−29.09	1976.01	0.000747
		[1.41]	[2.65]	[1.62]	[5.56]	[1974.03,1981.04]	
FSNFI	2	51.59	62.02	48.25	−22.21	1975.01	0.0907
		[2.21]	[4.44]	[2.51]	[6.88]	[1969.07,1983.09]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value
FSPCOM	2	36.75	38.60	30.26	−21.60	1991.02	0.220
		[1.52]	[1.71]	[3.20]	[9.00]	[1984.07,1999.12]	
FSPIN	2	37.50	39.48	30.52	−22.70	1991.02	0.171
		[1.55]	[1.74]	[3.27]	[8.95]	[1985.10,1999.12]	
FSPCAP	1	44.76	37.49	47.25	26.03	1970.03	0.186
		[1.80]	[3.54]	[2.07]	[13.11]	[1960.02,1977.07]	
FSPTR	2	54.76	59.27	44.36	−25.15	1991.03	0.0559
		[2.40]	[2.84]	[4.30]	[8.10]	[1987.08,1997.12]	
FSPUT	5	36.47	27.06	38.30	41.53	1966.07	0.0388
		[1.38]	[3.40]	[1.50]	[18.61]	[1961.05,1969.08]	
FSPFI	2	56.49	54.96	64.98	18.24	1995.07	0.734
		[2.43]	[2.64]	[6.21]	[12.64]	[1979.01,1999.12]	
Dividends and volume							
FSDXP	1	39.54	32.71	41.77	27.69	1969.11	0.210
		[1.69]	[3.39]	[1.94]	[14.50]	[1960.02,1975.02]	
FSPXE	4	44.58	46.66	37.25	−20.16	1991.02	0.311
		[1.86]	[2.10]	[3.93]	[9.16]	[1982.06,1999.12]	
FSNVV3	12	35.52	56.98	25.32	−55.57	1982.04	5.90E-016
		[1.94]	[3.04]	[2.09]	[4.37]	[1981.12,1983.06]	
Interest rates							
FYFF	12	444.00	578.48	262.71	−54.59	1982.12	6.69E-006
		[30.78]	[39.51]	[45.88]	[8.52]	[1982.09,1987.12]	
FYCP	12	455.54	215.82	547.46	153.66	1970.06	6.65E-007
		[27.20]	[49.93]	[30.92]	[60.41]	[1967.08,1970.07]	
FYGM3	12	400.10	487.22	246.01	−49.51	1985.07	1.16E-005
		[23.30]	[28.39]	[37.76]	[8.29]	[1985.05,1990.01]	
FYGM6	12	392.96	212.87	447.92	110.42	1969.05	6.94E-005
		[21.50]	[43.46]	[24.01]	[44.41]	[1965.11,1969.09]	
FYGT1	12	423.21	210.43	488.14	131.98	1969.05	2.36E-007
		[20.86]	[41.69]	[23.03]	[47.25]	[1967.01,1969.08]	
FYGT5	6	338.99	155.77	396.88	154.78	1969.08	4.56E-011
		[15.14]	[29.37]	[16.51]	[49.20]	[1967.12,1969.10]	
FYGT10	12	290.35	189.80	384.80	102.74	1979.05	7.30E-014
		[12.96]	[17.49]	[16.95]	[20.71]	[1977.03,1979.09]	
FYAAAC	12	207.85	108.87	300.04	175.60	1979.04	5.79E-021
		[10.65]	[13.99]	[13.50]	[37.53]	[1977.09,1979.06]	
FYBAAC	4	187.91	96.60	270.16	179.67	1978.12	1.36E-022
		[9.37]	[12.34]	[11.71]	[37.72]	[1977.07,1979.02]	
FWAFIT	3	313.38	469.95	214.60	−54.34	1981.11	9.34E-011
		[19.35]	[28.35]	[22.51]	[5.53]	[1981.06,1983.04]	
FYFHA	4	287.97	122.88	446.98	263.76	1979.08	9.73E-029
		[15.92]	[20.12]	[19.74]	[61.69]	[1978.05,1979.09]	
Exchange rates							
EXRUS	2	19.07	12.00	20.59	71.62	1979.06	0.00804
		[0.95]	[2.20]	[1.02]	[32.62]	[1976.08,1980.05]	
EXRGER	1	29.86	19.41	31.76	63.63	1978.09	0.0207
		[1.40]	[3.50]	[1.49]	[30.52]	[1975.12,1979.09]	
EXRSW	1	34.15	25.90	36.23	39.85	1980.01	0.0931
		[1.56]	[3.43]	[1.72]	[19.67]	[1975.07,1983.12]	
EXRJAN	3	31.03	21.34	32.70	53.20	1978.09	0.0801
		[1.48]	[3.81]	[1.58]	[28.34]	[1975.02,1980.06]	
EXRUK	3	27.08	30.41	17.97	−40.92	1993.04	0.000539
		[1.33]	[1.51]	[2.50]	[8.72]	[1992.08,1996.02]	
EXRCAN	12	12.06	11.47	14.38	25.38	1994.11	0.226
		[0.52]	[0.58]	[1.14]	[11.75]	[1987.10,1999.12]	
Producer prices							
PWFSA	9	4.42	4.74	3.20	−32.44	1991.07	0.0289
		[0.20]	[0.23]	[0.44]	[9.75]	[1990.03,1998.04]	
PWFCSA	9	5.53	5.92	4.05	−31.62	1991.08	0.0265
		[0.24]	[0.27]	[0.53]	[9.43]	[1990.01,1998.02]	
PWIMSA	4	4.59	3.23	5.22	61.42	1972.08	0.00137
		[0.23]	[0.41]	[0.28]	[22.08]	[1966.05,1973.02]	
PWCMSA	11	22.11	13.36	26.22	96.22	1972.10	1.11E-006
		[1.11]	[1.91]	[1.31]	[29.70]	[1969.05,1972.12]	
PWFXSA	9	4.56	2.49	4.95	98.81	1973.01	0.00507
		[0.25]	[0.61]	[0.26]	[50.22]	[1969.11,1973.06]	
PW160A	12	17.95	24.53	16.05	−34.56	1980.08	0.000464
		[0.85]	[1.74]	[0.93]	[5.99]	[1979.03,1983.10]	
PW150A	9	16.94	25.35	14.17	−44.08	1981.03	4.63E-007
		[0.89]	[1.70]	[0.97]	[5.36]	[1980.08,1983.10]	
PW561	5	54.64	26.38	107.44	307.31	1986.01	1.52E-039
		[3.37]	[3.55]	[4.86]	[57.87]	[1984.11,1986.02]	
PWCM	9	5.42	3.79	5.88	55.06	1968.09	0.00490
		[0.24]	[0.50]	[0.26]	[21.65]	[1963.07,1969.08]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value
PWXFA	9	5.06	6.79	4.56	−32.92	1975.03	0.0111
		[0.28]	[0.57]	[0.31]	[7.24]	[1973.05,1983.09]	
PSM99Q	12	14.44	10.92	15.94	45.95	1971.12	0.00132
		[0.58]	[1.04]	[0.68]	[15.23]	[1966.10,1973.11]	
PSCCOM	12	20.11	13.76	23.12	67.99	1972.11	1.07E-005
		[0.88]	[1.50]	[1.04]	[19.84]	[1969.01,1973.05]	
PSCFOO	12	30.31	20.37	35.03	71.93	1972.11	2.80E-005
		[1.42]	[2.45]	[1.69]	[22.27]	[1968.07,1973.03]	
PSCMAT	6	20.75	16.80	22.43	33.49	1971.12	0.0256
		[0.82]	[1.49]	[0.97]	[13.14]	[1963.10,1975.04]	
PZFR	6	22.76	30.16	20.92	−30.64	1980.10	0.0181
		[1.14]	[2.52]	[1.25]	[7.12]	[1979.01,1986.06]	
PCGOLD	7	51.52	79.30	39.03	−50.78	1983.06	3.49E-008
		[3.22]	[5.44]	[3.64]	[5.70]	[1983.01,1985.11]	
Consumer prices							
PUNEW	9	2.11	2.31	1.41	−39.01	1991.03	0.00183
		[0.10]	[0.11]	[0.20]	[9.16]	[1990.05,1995.08]	
PU81	12	4.20	6.00	3.17	−47.16	1979.09	3.97E-007
		[0.25]	[0.39]	[0.30]	[6.05]	[1979.05,1983.12]	
PUH	9	2.60	3.53	1.74	−50.78	1983.04	1.88E-010
		[0.14]	[0.19]	[0.18]	[5.68]	[1983.01,1985.11]	
PU83	6	3.92	2.96	5.72	93.51	1986.01	2.15E-016
		[0.16]	[0.19]	[0.26]	[15.03]	[1984.01,1986.06]	
PU84	8	5.87	6.13	4.95	−19.29	1991.03	0.385
		[0.25]	[0.28]	[0.53]	[9.35]	[1982.01,1999.12]	
PU85	6	2.23	3.00	1.17	−60.87	1983.04	2.03E-018
		[0.11]	[0.13]	[0.15]	[5.31]	[1983.02,1984.11]	
PUC	9	3.27	2.73	3.53	29.66	1972.12	0.0921
		[0.14]	[0.25]	[0.17]	[13.31]	[1960.02,1975.04]	
PUCD	12	2.83	3.32	1.99	−40.09	1985.06	3.50E-007
		[0.11]	[0.14]	[0.18]	[6.10]	[1984.08,1988.07]	
PUS	9	2.39	3.13	1.35	−57.06	1983.04	1.16E-015
		[0.11]	[0.14]	[0.16]	[5.45]	[1983.02,1985.02]	
PUXF	9	2.35	2.61	1.44	−44.73	1991.03	4.19E-006
		[0.09]	[0.10]	[0.19]	[7.76]	[1990.08,1993.09]	
PUXHS	12	2.65	2.88	1.82	−36.93	1991.03	0.000446
		[0.10]	[0.12]	[0.22]	[7.98]	[1990.02,1994.10]	
PUXM	9	2.41	2.68	1.47	−45.30	1991.03	7.11E-006
		[0.10]	[0.11]	[0.21]	[8.01]	[1990.09,1993.10]	
GMDC	9	1.64	1.28	1.81	40.99	1972.08	0.00257
		[0.06]	[0.11]	[0.08]	[13.73]	[1966.08,1974.06]	
GMDCD	12	2.80	3.19	2.36	−26.04	1981.05	0.00964
		[0.12]	[0.16]	[0.17]	[6.63]	[1977.11,1990.04]	
GMDCN	9	3.15	2.36	3.51	48.85	1972.08	0.00202
		[0.14]	[0.24]	[0.16]	[16.83]	[1966.08,1974.02]	
GMDCS	9	1.41	0.93	1.64	76.55	1972.12	1.29E-007
		[0.06]	[0.10]	[0.07]	[20.12]	[1970.02,1973.06]	
Miscellaneous							
PMI	12	2774.76	3173.35	2152.38	−32.17	1984.05	0.000105
		[109.63]	[137.36]	[171.64]	[6.15]	[1982.07,1989.01]	
PMP	12	4027.96	4500.91	3256.16	−27.66	1984.10	0.00375
		[162.98]	[203.99]	[260.58]	[6.65]	[1982.10,1992.03]	
PMNO	4	4298.43	4731.83	3591.16	−24.11	1984.10	0.0295
		[179.02]	[225.07]	[287.52]	[7.07]	[1980.09,1994.08]	
PMDEL	12	3550.93	4664.22	2124.85	−54.44	1982.06	4.22E-012
		[177.99]	[224.75]	[254.37]	[5.88]	[1982.02,1984.11]	
PMNV	12	3612.04	4165.76	2920.55	−29.89	1982.03	0.000231
		[141.43]	[185.96]	[207.81]	[5.89]	[1980.01,1987.07]	
PMEMP	12	3096.00	3465.24	2228.42	−35.69	1988.01	5.63E-005
		[121.21]	[141.39]	[216.72]	[6.78]	[1986.11,1991.10]	
PMCP	12	4544.49	4910.49	3902.93	−20.52	1985.06	0.145
		[195.37]	[243.26]	[322.07]	[7.65]	[1977.07,1999.03]	
HHSNTN	0	3917.86	2226.73	5318.52	138.85	1978.02	3.03E-020
		[174.12]	[236.65]	[215.37]	[27.16]	[1976.08,1978.04]	
F6EDM	12	70.79	99.71	60.11	−39.72	1974.06	2.94E-006
		[3.38]	[6.30]	[3.83]	[5.41]	[1973.09,1979.01]	
FTMC6	12	116.94	87.78	127.05	44.74	1973.07	0.00616
		[4.82]	[9.35]	[5.51]	[16.64]	[1968.11,1975.05]	
FTMM6	5	68.62	81.68	46.14	−43.51	1987.02	1.28E-006
		[3.21]	[3.90]	[5.11]	[6.81]	[1986.09,1990.05]	

Results for SupW tests for structural change in conditional volatility for individual series, when using a linear AR model with constant parameters for the conditional mean. The column headed σ_0 contains the estimate of the conditional standard deviation under the null hypothesis. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated break date is given in the column headed τ_v, with the 90% confidence interval for the break date given in brackets. The final column contains the asymptotic p-value of the SupW test. Figures in brackets below parameter estimates are standard errors.

Table A.2: Tests for structural change in conditional mean and volatility

Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	τ_m	p-value$_m$
Production									
IP	3	8.06 [0.35]	9.50 [0.44]	5.86 [0.54]	−38.31 [6.37]	1984.03 [1983.04,1988.04]	6.23E-006	1982.01 [1978.01,1987.05]	0.158
IPP	3	8.22 [0.33]	8.86 [0.36]	5.43 [0.75]	−38.77 [8.76]	1992.06 [1991.08,1995.11]	0.000840	1983.09 [1980.08,1987.02]	0.0400
IPF	3	8.77 [0.36]	9.82 [0.45]	7.19 [0.56]	−26.79 [6.62]	1984.01 [1981.04,1991.09]	0.00546	1984.01 [1981.10,1986.09]	0.00470
IPC	0	10.52 [0.43]	11.84 [0.54]	8.53 [0.67]	−27.96 [6.53]	1984.01 [1981.11,1991.03]	0.00273	1972.12 [1962.03,1987.03]	0.189
IPCD	1	25.83 [1.26]	27.63 [1.70]	23.60 [1.89]	−14.59 [8.61]	1982.02 [1964.06,1999.12]	0.658	1984.01 [1980.01,1988.06]	0.00956
IPCN	2	8.46 [0.30]	8.97 [0.34]	6.85 [0.61]	−23.64 [7.40]	1990.04 [1986.09,1997.08]	0.0385	1978.06 [1974.08,1982.05]	0.00513
IPE	5	12.59 [0.49]	13.46 [0.54]	8.90 [1.11]	−33.89 [8.69]	1992.04 [1990.07,1996.07]	0.00494	1986.06 [1982.05,1990.05]	0.364
IPI	3	10.02 [0.41]	10.96 [0.44]	5.93 [0.92]	−45.90 [8.70]	1992.06 [1991.12,1994.12]	2.96E-005	1991.03 [1989.10,1992.12]	0.189
IPM	12	10.39 [0.44]	12.50 [0.55]	7.16 [0.68]	−42.70 [6.01]	1984.03 [1983.08,1987.05]	5.20E-008	1971.09 [1969.01,1973.11]	0.0964
IPMD	12	14.41 [0.66]	17.27 [0.83]	10.10 [1.02]	−41.50 [6.55]	1984.01 [1983.05,1987.12]	2.06E-006	1971.11 [1969.12,1973.06]	0.00713
IPMND	10	12.07 [0.47]	13.55 [0.59]	9.65 [0.75]	−28.78 [6.34]	1984.10 [1982.12,1990.12]	0.00108	1981.12 [1980.09,1982.12]	4.04E-006
IPMFG	3	8.82 [0.39]	10.45 [0.49]	6.38 [0.60]	−38.94 [6.43]	1984.01 [1983.03,1988.03]	5.72E-006	1982.01 [1979.02,1985.11]	0.0236
IPD	3	11.54 [0.55]	13.52 [0.69]	8.55 [0.85]	−36.76 [7.10]	1984.01 [1982.07,1989.04]	0.000184	1982.01 [1979.06,1985.09]	0.0107
IPN	3	8.14 [0.33]	8.93 [0.37]	5.22 [0.70]	−41.59 [8.23]	1991.06 [1990.12,1994.07]	8.62E-005	1982.01 [1978.06,1984.05]	0.0134
IPMIN	1	13.13 [0.56]	14.39 [0.68]	10.56 [0.97]	−26.63 [7.56]	1986.11 [1983.03,1995.01]	0.0206	1981.06 [1976.06,1989.01]	0.0387
IPUT	10	17.24 [0.71]	11.21 [1.16]	20.35 [0.84]	81.58 [20.26]	1973.08 [1971.02,1974.03]	8.20E-009	1983.12 [1982.02,1984.11]	0.000149
IPX	3	629.73 [30.09]	780.81 [40.83]	474.65 [41.37]	−39.21 [6.18]	1984.03 [1983.05,1987.12]	5.12E-006	1982.01 [1979.06,1985.04]	0.0189
IPXMCA	3	713.96 [31.19]	848.43 [39.03]	511.20 [47.92]	−39.75 [6.29]	1984.01 [1983.03,1987.11]	1.89E-006	1982.01 [1979.01,1986.02]	0.0434
IPXDCA	3	870.03 [44.57]	1070.72 [61.26]	668.29 [61.42]	−37.59 [6.76]	1984.01 [1982.07,1988.06]	0.000107	1982.01 [1980.03,1984.07]	0.000781
IPXNCA	3	682.41 [29.52]	769.25 [33.38]	443.15 [55.40]	−42.39 [7.62]	1991.06 [1990.12,1994.02]	1.60E-005	1982.01 [1978.05,1984.07]	0.0338
IPXMIN	1	1197.83 [56.90]	1337.26 [67.33]	888.50 [100.29]	−33.56 [8.21]	1990.01 [1988.10,1995.05]	0.00442	1980.05 [1972.05,1990.02]	0.320
IPXUT	6	1631.99 [73.84]	1358.12 [106.61]	1869.80 [99.34]	37.68 [13.05]	1982.11 [1975.10,1985.08]	0.00887	1983.10 [1981.01,1985.08]	0.0282
GMPYQ	9	4.38 [0.19]	4.73 [0.23]	3.72 [0.32]	−21.33 [7.74]	1986.03 [1978.12,1998.11]	0.123	1972.07 [1970.07,1974.08]	0.00867
GMYXPQ	9	4.15 [0.17]	4.30 [0.18]	3.35 [0.41]	−22.22 [10.05]	1993.07 [1986.06,1999.12]	0.296	1982.12 [1980.07,1984.12]	0.0198
(Un)employment									
LHEL	12	2078.07 [82.90]	1527.51 [142.98]	2338.94 [98.42]	53.12 [15.71]	1972.11 [1968.09,1974.03]	9.14E-005	1984.02 [1983.01,1985.04]	1.82E-006
LHELX	4	46.30 [2.01]	57.23 [2.70]	34.57 [2.80]	−39.59 [5.67]	1980.09 [1980.01,1984.08]	2.51E-007	1991.03 [1990.05,1992.03]	5.15E-005
LHEM	8	3.23 [0.13]	3.67 [0.16]	2.39 [0.21]	−34.87 [6.42]	1986.02 [1984.08,1990.02]	3.89E-005	1965.12 [1964.08,1967.05]	0.000121
LHNAG	8	3.06 [0.12]	3.42 [0.14]	2.41 [0.19]	−29.44 [6.36]	1985.09 [1983.05,1990.12]	0.000726	1967.02 [1965.05,1968.10]	0.00497
LHUR	12	182.82 [7.71]	202.37 [9.74]	151.77 [12.28]	−25.00 [7.06]	1984.07 [1981.02,1994.02]	0.0217	1984.08 [1982.05,1986.11]	0.405
LHU680	7	525.04 [20.13]	751.23 [50.33]	484.37 [21.34]	−35.52 [5.17]	1966.02 [1964.09,1969.02]	3.49E-005	1969.10 [1966.09,1976.09]	0.775
LHU5	12	48.93 [2.03]	58.98 [3.23]	42.72 [2.54]	−27.57 [5.86]	1975.04 [1971.12,1981.12]	0.00185	1970.02 [1967.07,1974.04]	0.660
LHU14	5	59.91 [2.24]	70.35 [2.94]	47.19 [3.24]	−32.92 [5.40]	1981.12 [1980.07,1985.12]	4.58E-006	1992.02 [1989.09,1993.08]	0.375
LHU15	4	58.70 [2.17]	80.25 [3.94]	50.33 [2.45]	−37.28 [4.34]	1971.03 [1970.01,1973.08]	5.35E-009	1992.06 [1990.11,1993.03]	0.0184
LHU26	4	90.27 [3.21]	109.42 [4.86]	76.78 [4.08]	−29.83 [4.86]	1976.07 [1974.05,1980.06]	9.78E-006	1992.06 [1990.12,1993.05]	0.000970
LHU27	7	77.68 [3.06]	96.88 [4.11]	57.92 [4.17]	−40.22 [5.00]	1980.04 [1979.06,1983.02]	1.48E-009	1969.06 [1967.02,1974.04]	0.306
LHCH	12	210.51 [9.06]	198.33 [9.74]	277.21 [22.79]	39.77 [13.38]	1989.09 [1983.12,1992.07]	0.0248	1975.06 [1974.07,1976.11]	6.76E-005

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	τ_m	p-value$_m$
LPNAG	4	1.82	2.37	1.11	−53.33	1982.07	2.19E-014	1973.10	0.00275
		[0.08]	[0.10]	[0.12]	[5.31]	[1982.03,1984.06]		[1971.07,1977.02]	
LP	3	2.12	2.78	1.17	−57.87	1983.07	3.46E-016	1972.08	0.000155
		[0.10]	[0.12]	[0.14]	[5.44]	[1983.04,1985.03]		[1970.12,1975.08]	
LPGD	3	3.82	4.94	2.11	−57.23	1984.03	1.69E-012	1970.02	0.00198
		[0.19]	[0.23]	[0.29]	[6.20]	[1983.12,1986.05]		[1967.08,1972.10]	
LPMI	12	8.21	9.12	5.57	−38.90	1989.09	0.00279	1980.02	2.01E-009
		[0.41]	[0.47]	[0.80]	[9.27]	[1988.06,1995.01]		[1979.07,1981.04]	
LPCC	5	10.24	13.20	5.70	−56.78	1984.03	1.11E-011	1973.01	5.21E-009
		[0.53]	[0.64]	[0.79]	[6.37]	[1983.11,1986.06]		[1972.05,1974.09]	
LPEM	3	3.33	4.38	1.80	−58.94	1983.09	6.78E-010	1971.10	0.00112
		[0.20]	[0.24]	[0.29]	[7.08]	[1983.05,1986.05]		[1969.12,1975.06]	
LPED	5	4.55	5.91	2.54	−56.94	1983.10	2.99E-007	1971.10	0.000671
		[0.30]	[0.37]	[0.45]	[8.05]	[1983.04,1987.06]		[1970.05,1974.11]	
LPEN	2	2.69	3.54	1.54	−56.41	1983.01	5.78E-015	1969.02	0.000935
		[0.13]	[0.16]	[0.18]	[5.50]	[1982.10,1984.11]		[1967.03,1971.09]	
LPSP	6	1.45	1.78	1.06	−40.22	1981.10	5.32E-008	1973.01	0.178
		[0.06]	[0.08]	[0.09]	[5.56]	[1980.09,1984.11]		[1969.09,1977.08]	
LPTU	12	4.52	5.59	3.50	−37.37	1979.06	0.000412	1971.11	0.0337
		[0.25]	[0.35]	[0.34]	[7.16]	[1976.01,1984.06]		[1969.08,1973.12]	
LPT	12	2.30	2.74	1.54	−43.61	1985.03	2.00E-008	1968.08	1.56E-007
		[0.10]	[0.12]	[0.15]	[6.04]	[1984.07,1987.12]		[1967.06,1969.05]	
LPFR	10	1.34	1.53	1.12	−26.71	1981.06	0.00114	1974.02	0.0241
		[0.05]	[0.07]	[0.07]	[5.80]	[1978.10,1987.11]		[1972.07,1976.11]	
LPS	10	1.87	2.17	1.43	−34.22	1983.07	1.64E-005	1973.04	0.598
		[0.07]	[0.09]	[0.11]	[5.95]	[1982.03,1987.10]		[1969.01,1977.04]	
LPGOV	12	2.36	2.72	1.12	−59.01	1991.01	1.83E-006	1975.02	0.0133
		[0.13]	[0.14]	[0.26]	[9.75]	[1990.11,1993.07]		[1973.05,1976.09]	
LW	4	118.30	141.33	90.01	−36.31	1984.04	4.39E-005	1982.01	0.000821
		[5.43]	[7.11]	[7.88]	[6.43]	[1982.07,1988.03]		[1980.04,1984.06]	
LPHRM	12	234.47	281.20	162.78	−42.11	1984.03	5.38E-006	1969.04	0.846
		[11.32]	[14.15]	[17.53]	[6.88]	[1983.07,1988.05]		[1965.06,1972.03]	
LPMOSA	12	136.76	157.82	110.01	−30.30	1982.05	0.00159	1972.02	0.884
		[6.04]	[7.95]	[8.96]	[6.67]	[1979.12,1989.03]		[1968.03,1975.03]	
Wages and salaries									
LEH	12	2.36	2.86	1.24	−56.52	1989.02	5.93E-012	1981.09	0.0317
		[0.11]	[0.12]	[0.18]	[6.58]	[1988.11,1990.09]		[1981.02,1982.07]	
LEHCC	11	5.50	6.13	3.96	−35.45	1988.04	0.000809	1966.03	0.00626
		[0.24]	[0.28]	[0.44]	[7.75]	[1986.07,1993.01]		[1965.10,1967.12]	
LEHM	11	3.28	3.94	2.48	−37.05	1982.02	1.05E-005	1974.07	0.0404
		[0.15]	[0.19]	[0.21]	[6.18]	[1980.09,1986.05]		[1972.05,1976.10]	
LEHTU	11	4.11	5.36	2.98	−44.38	1981.08	1.09E-008	1981.09	0.0607
		[0.20]	[0.27]	[0.26]	[5.59]	[1980.10,1984.05]		[1980.12,1982.10]	
LEHTT	9	2.71	3.37	2.10	−37.72	1981.11	1.09E-007	1981.09	0.00173
		[0.11]	[0.15]	[0.15]	[5.23]	[1980.11,1984.11]		[1981.01,1983.02]	
LEHFR	12	4.57	5.41	2.79	−48.38	1988.10	2.42E-010	1972.01	0.577
		[0.19]	[0.21]	[0.31]	[6.12]	[1988.04,1990.07]		[1970.07,1974.06]	
LEHS	12	3.06	3.79	1.45	−61.85	1989.02	1.90E-016	1972.04	0.0243
		[0.14]	[0.15]	[0.22]	[6.08]	[1988.12,1990.04]		[1971.05,1974.02]	
Construction									
HSFR	12	84.91	91.07	58.99	−35.22	1992.04	0.00311	1966.01	0.574
		[3.36]	[3.69]	[7.56]	[8.71]	[1990.10,1996.04]		[1964.07,1967.10]	
HSNE	4	184.31	200.46	161.77	−19.30	1983.04	0.119	1966.02	0.732
		[7.43]	[9.67]	[11.42]	[6.90]	[1976.10,1998.03]		[1960.03,1971.04]	
HSMW	3	162.28	174.86	118.03	−32.50	1991.02	0.00874	1982.06	0.272
		[6.80]	[7.60]	[14.26]	[8.67]	[1989.09,1996.08]		[1976.11,1988.10]	
HSSOU	12	100.01	106.07	78.98	−25.54	1991.01	0.0532	1975.02	0.334
		[3.91]	[4.40]	[8.20]	[8.33]	[1987.06,1998.07]		[1972.02,1977.12]	
HSWST	2	133.34	141.73	119.28	−15.84	1985.01	0.225	1967.02	0.438
		[4.78]	[6.00]	[7.77]	[6.54]	[1975.03,1999.12]		[1962.03,1972.10]	
HSBR	2	68.22	75.34	42.27	−43.90	1991.05	4.64E-005	1978.07	0.00642
		[2.89]	[3.18]	[6.08]	[8.41]	[1990.11,1994.05]		[1973.09,1982.01]	
HSBNE	4	122.42	138.23	96.97	−29.84	1985.01	0.00290	1994.01	0.534
		[5.32]	[6.67]	[8.45]	[6.99]	[1982.07,1991.07]		[1992.05,1998.05]	
HSBMW	12	108.75	121.32	65.95	−45.64	1991.02	5.76E-005	1982.02	0.385
		[4.97]	[5.53]	[10.20]	[8.76]	[1990.05,1994.02]		[1978.12,1984.08]	
HSBSOU	12	80.32	64.49	84.74	31.41	1969.07	0.137	1978.03	0.528
		[3.34]	[7.10]	[3.75]	[15.59]	[1961.02,1973.08]		[1974.05,1980.12]	
HSBWST	1	100.24	106.78	77.11	−27.79	1991.05	0.0541	1985.09	0.352
		[4.27]	[4.80]	[9.02]	[9.05]	[1989.06,1999.03]		[1977.01,1997.02]	
HNS	2	83.74	86.99	67.22	−22.73	1994.01	0.229	1984.05	0.135
		[3.24]	[3.53]	[7.94]	[9.65]	[1991.01,1999.12]		[1978.05,1990.02]	
HNSNE	12	180.07	188.79	132.27	−29.94	1995.12	0.157	1995.07	0.0177
		[8.38]	[9.02]	[21.12]	[11.68]	[1994.07,1999.12]		[1995.01,1996.03]	
HNSMW	11	129.75	141.62	121.99	−13.86	1984.04	0.734	1983.06	0.0586
		[6.48]	[10.26]	[8.30]	[8.56]	[1974.02,1999.12]		[1981.08,1984.07]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	τ_m	p-value$_m$
HNSSOU	12	103.57 [4.79]	114.15 [5.57]	77.58 [8.73]	−32.04 [8.34]	1992.06 [1990.05,1996.06]	0.00829	1980.07 [1979.08,1982.03]	0.0763
HNSWST	12	127.37 [6.43]	136.49 [6.91]	80.87 [15.61]	−40.75 [11.82]	1995.09 [1994.10,1998.11]	0.0198	1992.01 [1990.08,1993.05]	0.478
HNR	4	586.85 [24.57]	635.68 [27.28]	409.37 [52.01]	−35.60 [8.64]	1992.03 [1990.09,1996.01]	0.00268	1981.12 [1978.10,1986.04]	0.0449
HMOB	3	52.79 [2.25]	66.68 [2.99]	37.88 [3.10]	−43.20 [5.29]	1980.09 [1980.01,1983.07]	1.09E-009	1980.03 [1977.01,1984.04]	0.0343
CONTC	1	18.28 [0.77]	21.71 [1.01]	14.14 [1.11]	−34.86 [5.96]	1984.02 [1982.10,1988.01]	1.72E-005	1991.01 [1985.12,1998.05]	0.450
CONPC	6	17.95 [0.76]	22.94 [1.25]	15.26 [0.92]	−33.50 [5.42]	1977.04 [1975.10,1981.08]	2.67E-005	1970.09 [1969.02,1972.04]	0.000950
CONQC	2	35.50 [1.49]	40.74 [2.02]	29.72 [2.13]	−27.05 [6.36]	1983.05 [1980.07,1990.02]	0.00389	1981.08 [1973.09,1990.09]	0.494
CONDO9	9	92.11 [3.75]	68.73 [8.24]	98.05 [4.15]	42.65 [18.14]	1968.02 [1961.11,1969.11]	0.0253	1981.11 [1978.06,1985.02]	0.190
Trade									
MSMTQ	12	11.26 [0.42]	12.37 [0.47]	7.22 [0.89]	−41.68 [7.52]	1991.05 [1990.09,1993.12]	1.01E-005	1984.10 [1982.11,1987.01]	0.184
MSMQ	12	15.19 [0.59]	17.80 [0.80]	12.37 [0.83]	−30.51 [5.63]	1980.10 [1978.12,1985.12]	8.25E-005	1991.03 [1990.04,1992.04]	0.310
MSDQ	12	21.79 [0.87]	23.92 [0.96]	14.17 [1.81]	−40.76 [7.94]	1991.03 [1990.04,1994.03]	6.26E-005	1991.03 [1990.04,1992.01]	0.266
MSNQ	3	12.55 [0.48]	14.34 [0.62]	10.11 [0.73]	−29.51 [5.91]	1983.01 [1981.01,1988.06]	0.000271	1990.12 [1989.08,1993.10]	0.00801
WTQ	3	15.78 [0.62]	17.69 [0.74]	11.74 [1.07]	−33.63 [6.64]	1987.02 [1985.09,1991.06]	0.000135	1972.06 [1969.04,1975.09]	0.0115
WTDQ	5	17.67 [0.68]	18.82 [0.74]	12.02 [1.64]	−36.12 [9.05]	1993.03 [1992.01,1996.11]	0.00344	1984.06 [1981.05,1987.01]	0.0421
WTNQ	4	21.30 [0.80]	24.39 [1.04]	17.22 [1.20]	−29.41 [5.77]	1982.10 [1980.11,1988.02]	0.000190	1973.09 [1969.05,1978.01]	0.0951
RTQ	11	12.92 [0.54]	14.34 [0.60]	7.99 [1.12]	−44.26 [8.17]	1991.01 [1990.08,1993.12]	2.15E-005	1986.09 [1984.09,1989.08]	0.331
RTDQ	2	29.43 [1.30]	32.81 [1.44]	17.71 [2.68]	−46.02 [8.52]	1991.01 [1990.10,1994.01]	2.44E-005	1986.09 [1984.12,1989.07]	0.000342
RTNQ	12	8.65 [0.33]	10.45 [0.44]	6.80 [0.45]	−34.94 [5.12]	1980.04 [1979.03,1983.11]	3.26E-007	1973.10 [1972.04,1976.11]	0.0433
Inventories									
IVMTQ	3	3.95 [0.14]	4.24 [0.16]	2.92 [0.29]	−31.09 [7.39]	1991.03 [1989.08,1995.05]	0.00180	1970.06 [1964.03,1977.06]	0.397
IVMFGQ	12	3.95 [0.15]	4.20 [0.19]	3.52 [0.24]	−16.22 [6.91]	1985.02 [1975.06,1999.12]	0.258	1975.02 [1973.05,1976.09]	0.000610
IVMFDQ	12	5.10 [0.20]	6.30 [0.38]	4.65 [0.23]	−26.26 [5.73]	1970.12 [1968.05,1979.03]	0.00397	1975.08 [1973.03,1977.08]	0.0321
IVMFNQ	2	5.22 [0.19]	5.71 [0.23]	4.21 [0.34]	−26.16 [6.62]	1986.12 [1984.05,1993.08]	0.00561	1985.01 [1982.05,1987.12]	0.00311
IVWRQ	12	7.85 [0.30]	8.96 [0.37]	6.02 [0.47]	−32.85 [5.96]	1984.12 [1983.05,1989.01]	3.07E-005	1974.05 [1972.05,1976.02]	0.00332
IVRRQ	12	8.27 [0.32]	8.90 [0.37]	6.80 [0.57]	−23.62 [7.21]	1988.01 [1983.03,1996.01]	0.0347	1965.12 [1964.07,1967.02]	0.00175
IVSRQ	12	16.20 [0.62]	17.46 [0.66]	10.02 [1.46]	−42.60 [8.67]	1993.03 [1992.07,1995.09]	0.000113	1984.10 [1982.02,1987.05]	0.395
IVSRMQ	12	23.93 [0.95]	25.49 [1.03]	16.49 [2.25]	−35.29 [9.19]	1993.01 [1992.03,1997.04]	0.00573	1975.03 [1973.02,1977.10]	0.0721
IVSRWQ	2	20.36 [0.76]	14.77 [1.97]	21.34 [0.82]	44.42 [19.99]	1965.12 [1961.02,1967.12]	0.0332	1985.02 [1976.11,1992.12]	0.389
IVSRRQ	5	19.94 [0.87]	21.51 [1.00]	15.19 [1.73]	−29.36 [8.70]	1990.01 [1988.04,1997.08]	0.0267	1991.02 [1989.02,1994.07]	0.514
Orders									
MOCMQ	12	27.42 [1.04]	29.30 [1.15]	19.71 [2.33]	−32.74 [8.37]	1992.02 [1990.11,1996.07]	0.00470	1971.11 [1969.03,1975.05]	0.536
MDOQ	6	35.45 [1.32]	37.55 [1.46]	27.06 [2.91]	−27.92 [8.24]	1991.12 [1989.12,1997.10]	0.0220	1984.03 [1982.05,1985.12]	0.000328
MSONDQ	9	73.23 [2.79]	46.40 [6.55]	78.85 [3.00]	69.94 [24.86]	1966.12 [1964.02,1967.08]	0.000198	1991.06 [1990.04,1992.07]	0.00459
MO	6	21.78 [0.77]	22.72 [0.83]	16.87 [1.90]	−25.75 [8.78]	1993.07 [1991.04,1999.09]	0.0666	1984.03 [1981.08,1986.06]	0.0101
MOWU	6	30.62 [1.12]	32.11 [1.25]	24.66 [2.49]	−23.21 [8.30]	1991.12 [1989.01,1999.12]	0.0958	1984.03 [1982.04,1985.11]	0.000311
MDO	6	35.37 [1.29]	37.47 [1.43]	27.00 [2.85]	−27.94 [8.08]	1991.12 [1990.01,1997.07]	0.0181	1984.03 [1982.04,1986.01]	0.000436
MDUWU	6	36.93 [1.37]	38.76 [1.52]	29.63 [3.04]	−23.57 [8.39]	1991.12 [1988.11,1999.12]	0.0931	1984.03 [1982.05,1985.10]	0.000138
MNO	12	12.87 [0.53]	13.69 [0.58]	9.16 [1.23]	−33.09 [9.40]	1992.09 [1991.03,1997.10]	0.0154	1969.04 [1967.11,1970.06]	0.117

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	τ_m	p-value$_m$
MNOU	6	20.43	17.71	21.55	21.66	1971.09	0.146	1968.08	0.0956
		[0.70]	[1.29]	[0.83]	[10.05]	[1960.06,1980.03]		[1964.11,1970.07]	
MU	3	7.73	8.91	7.37	−17.31	1969.06	0.216	1984.03	0.00394
		[0.29]	[0.58]	[0.32]	[6.54]	[1961.04,1985.07]		[1980.10,1985.09]	
MDU	3	8.04	9.36	7.63	−18.52	1969.06	0.149	1984.03	0.00360
		[0.30]	[0.61]	[0.34]	[6.43]	[1962.11,1984.05]		[1980.10,1985.09]	
MNU	12	17.19	18.59	15.03	−19.17	1984.03	0.0769	1976.08	0.00702
		[0.63]	[0.81]	[1.00]	[6.44]	[1977.08,1996.01]		[1974.10,1978.07]	
MPCON	5	76.13	50.28	82.52	64.13	1967.12	2.29E-005	1991.06	0.132
		[2.65]	[5.81]	[2.89]	[19.82]	[1965.05,1968.09]		[1989.09,1994.09]	
MPCONQ	9	75.11	53.45	80.47	50.56	1967.12	0.000455	1991.06	0.0705
		[2.55]	[5.62]	[2.79]	[16.67]	[1964.09,1969.03]		[1990.04,1993.01]	
Consumption									
GMCQ	8	6.18	6.76	4.09	−39.49	1991.03	0.000214	1984.01	0.0477
		[0.25]	[0.28]	[0.53]	[8.17]	[1990.02,1994.07]		[1981.08,1986.10]	
GMCDQ	8	29.37	31.54	21.54	−31.72	1991.04	0.0115	1985.09	1.10E-006
		[1.22]	[1.36]	[2.58]	[8.69]	[1990.06,1997.03]		[1984.04,1986.11]	
GMCNQ	12	7.23	8.45	5.21	−38.29	1984.11	1.24E-006	1991.12	0.740
		[0.29]	[0.36]	[0.46]	[6.06]	[1983.08,1988.02]		[1990.12,1993.05]	
GMCSQ	10	3.50	1.45	4.01	176.65	1968.01	2.00E-011	1968.01	0.000235
		[0.15]	[0.31]	[0.16]	[61.08]	[1966.08,1968.02]		[1967.06,1968.02]	
GMCANQ	5	75.71	82.49	50.97	−38.21	1991.05	0.00361	1985.09	2.01E-012
		[3.48]	[3.87]	[7.40]	[9.43]	[1990.08,1996.03]		[1984.07,1986.06]	
Money and credit									
FM1	9	4.40	3.31	5.41	63.77	1979.03	2.98E-008	1970.04	0.143
		[0.18]	[0.25]	[0.24]	[14.13]	[1976.01,1980.03]		[1968.08,1971.08]	
FM2	12	2.32	1.55	2.46	58.74	1966.04	0.0147	1981.04	0.147
		[0.10]	[0.25]	[0.11]	[26.45]	[1961.09,1967.01]		[1978.11,1984.03]	
FM3	8	2.48	1.56	2.65	69.47	1966.04	0.00107	1970.10	0.0121
		[0.10]	[0.24]	[0.10]	[27.24]	[1963.03,1966.12]		[1968.10,1972.08]	
FML	12	3.32	3.05	3.96	29.65	1987.01	0.00659	1985.12	0.957
		[0.12]	[0.14]	[0.21]	[9.04]	[1980.11,1991.04]		[1981.02,1989.09]	
FM2DQ	10	2.92	2.20	3.16	43.49	1970.01	0.00769	1975.06	0.0870
		[0.12]	[0.23]	[0.13]	[16.39]	[1964.01,1971.09]		[1973.03,1978.01]	
FMFBA	11	2.53	2.67	2.44	−8.49	1975.11	0.959	1981.03	0.0361
		[0.10]	[0.16]	[0.13]	[7.17]	[1960.02,1999.12]		[1978.12,1983.10]	
FMBASE	12	3.94	3.53	4.34	23.08	1979.09	0.0915	1981.04	0.132
		[0.15]	[0.22]	[0.21]	[9.61]	[1965.11,1987.01]		[1978.07,1984.01]	
FMRRA	11	10.10	9.02	10.98	21.74	1977.12	0.0963	1980.12	2.38E-006
		[0.37]	[0.54]	[0.49]	[9.14]	[1964.06,1985.05]		[1980.03,1982.04]	
FMRNBA	1	17.67	11.27	19.56	73.54	1969.02	0.00109	1984.09	0.00227
		[0.86]	[1.78]	[0.97]	[28.74]	[1964.07,1969.06]		[1982.04,1989.05]	
FMRNBC	1	15.30	16.94	10.13	−40.24	1988.01	0.000734	1986.03	0.000684
		[0.71]	[0.80]	[1.42]	[8.83]	[1987.04,1992.01]		[1985.01,1988.07]	
FCLS	2	3.83	3.58	4.96	38.64	1995.02	0.0525	1987.01	0.109
		[0.19]	[0.20]	[0.43]	[14.35]	[1986.08,1997.01]		[1982.03,1989.12]	
FCSGV	3	9.78	11.43	8.07	−29.35	1987.03	0.00893	1995.04	0.0943
		[0.49]	[0.67]	[0.68]	[7.26]	[1984.09,1992.11]		[1993.07,1996.03]	
FCLRE	3	2.86	2.53	4.67	85.09	1995.11	1.02E-005	1993.04	0.194
		[0.16]	[0.17]	[0.38]	[19.49]	[1992.09,1996.04]		[1986.12,1994.01]	
FCLIN	3	3.96	3.61	5.92	64.18	1996.01	0.000799	1995.08	0.0276
		[0.20]	[0.22]	[0.51]	[17.26]	[1993.03,1997.03]		[1992.05,1996.02]	
FCLNBF	1	18.98	15.52	23.83	53.55	1985.09	0.000991	1980.06	0.102
		[1.03]	[1.30]	[1.54]	[16.29]	[1982.04,1987.02]		[1976.02,1983.01]	
FCLNQ	7	8.85	5.75	9.75	69.36	1968.12	1.42E-005	1974.07	0.606
		[0.34]	[0.69]	[0.37]	[21.43]	[1966.03,1969.09]		[1969.09,1979.01]	
FCLBMC	8	29459.51	10638.64	47738.23	348.73	1979.09	1.70E-038	1991.10	0.0123
		[1632.55]	[1987.90]	[1959.06]	[85.85]	[1978.09,1979.10]		[1989.03,1992.10]	
CCI30M	12	82.91	48.12	107.68	123.78	1974.11	2.53E-012	1976.10	0.137
		[4.14]	[6.03]	[5.09]	[29.97]	[1972.10,1975.02]		[1975.06,1977.11]	
CCINT	8	2369383.74	1207112.59	2988255.39	147.55	1982.11	1.08E-007	1980.06	1.00
		[152531.68]	[241222.97]	[176021.30]	[51.57]	[1981.04,1983.02]		[1978.08,1981.05]	
CCINV	7	1173797.01	554479.80	1497440.20	170.06	1982.10	8.81E-010	1986.02	0.908
		[72650.82]	[113594.66]	[82117.29]	[57.27]	[1981.07,1982.12]		[1983.02,1988.02]	
Stock prices									
FSNCOM	2	37.24	39.52	29.25	−25.99	1991.02	0.0631	1974.09	0.385
		[1.51]	[1.70]	[3.19]	[8.67]	[1987.07,1998.12]		[1964.11,1983.02]	
FSNIN	2	39.63	43.54	28.98	−33.44	1991.02	0.00562	1974.09	0.428
		[1.80]	[2.07]	[3.42]	[8.46]	[1989.04,1995.11]		[1968.03,1981.05]	
FSNTR	2	55.42	60.11	42.45	−29.38	1991.03	0.0112	1974.09	0.530
		[2.30]	[2.65]	[4.40]	[7.95]	[1988.10,1996.04]		[1967.08,1982.04]	
FSNUT	5	34.61	42.43	31.67	−25.35	1976.01	0.00846	1974.09	0.191
		[1.38]	[2.60]	[1.59]	[5.92]	[1973.05,1983.03]		[1971.07,1978.01]	
FSNFI	2	51.11	61.82	47.66	−22.90	1975.01	0.0686	1990.10	0.344
		[2.18]	[4.38]	[2.48]	[6.78]	[1970.02,1983.06]		[1985.09,1995.11]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	τ_m	p-value$_m$
FSPCOM	2	36.88	38.71	30.45	−21.33	1991.02	0.207	1990.10	0.397
		[1.48]	[1.67]	[3.13]	[8.77]	[1985.06,1999.12]		[1985.10,1996.04]	
FSPIN	2	37.47	39.45	30.53	−22.60	1991.02	0.161	1982.08	0.408
		[1.52]	[1.71]	[3.21]	[8.81]	[1986.01,1999.12]		[1974.08,1993.04]	
FSPCAP	1	44.39	37.52	46.74	24.57	1970.03	0.235	1990.10	0.283
		[1.79]	[3.52]	[2.06]	[12.91]	[1960.02,1978.04]		[1984.09,1996.12]	
FSPTR	2	54.23	58.92	43.42	−26.31	1991.03	0.0396	1991.01	0.812
		[2.39]	[2.82]	[4.29]	[8.09]	[1987.12,1997.06]		[1984.04,1999.03]	
FSPUT	5	36.34	28.91	38.17	32.03	1967.12	0.0691	1974.09	0.0675
		[1.33]	[2.95]	[1.47]	[14.40]	[1960.12,1972.03]		[1970.05,1978.01]	
FSPFI	2	55.59	63.47	53.95	−15.01	1976.01	0.706	1990.10	0.0414
		[2.37]	[5.68]	[2.60]	[8.63]	[1971.02,1993.08]		[1987.04,1993.07]	
Dividends and volume									
FSDXP	1	39.55	33.02	41.68	26.22	1969.11	0.216	1990.10	0.00373
		[1.63]	[3.26]	[1.86]	[13.68]	[1960.02,1975.07]		[1987.04,1993.03]	
FSPXE	4	44.28	38.00	46.34	21.96	1969.11	0.372	1973.07	0.954
		[1.80]	[3.61]	[2.07]	[12.80]	[1960.02,1978.10]		[1969.02,1976.05]	
FSNVV3	12	32.66	48.88	23.99	−50.92	1982.11	4.21E-011	1981.04	0.000361
		[1.80]	[2.80]	[2.05]	[5.05]	[1982.07,1984.08]		[1980.12,1982.03]	
Interest rates									
FYFF	12	446.76	545.22	208.33	−61.79	1988.04	1.91E-007	1980.06	1.05E-011
		[27.04]	[31.04]	[48.31]	[9.12]	[1988.02,1990.09]		[1980.02,1981.12]	
FYCP	12	449.57	208.10	529.34	154.36	1969.05	1.16E-008	1980.05	2.85E-015
		[22.88]	[44.00]	[25.29]	[55.14]	[1967.04,1969.06]		[1979.12,1981.05]	
FYGM3	12	390.56	471.03	236.01	−49.90	1986.04	1.85E-006	1981.03	9.51E-009
		[21.05]	[25.19]	[34.91]	[7.88]	[1986.01,1990.01]		[1980.08,1982.10]	
FYGM6	12	382.76	440.89	223.34	−49.34	1989.04	1.41E-005	1981.03	5.17E-008
		[19.50]	[22.19]	[36.75]	[8.72]	[1988.12,1992.09]		[1980.06,1982.10]	
FYGT1	12	415.07	227.24	472.39	107.88	1969.05	6.35E-007	1980.10	1.78E-006
		[18.95]	[37.94]	[20.96]	[35.91]	[1966.12,1969.09]		[1979.10,1982.03]	
FYGT5	6	336.42	165.84	389.09	134.62	1969.06	3.78E-010	1982.03	0.0203
		[14.49]	[28.48]	[15.82]	[41.40]	[1967.09,1969.08]		[1979.09,1985.10]	
FYGT10	12	276.95	192.40	356.37	85.23	1979.05	1.14E-010	1982.08	4.41E-005
		[12.25]	[16.76]	[16.24]	[18.21]	[1976.08,1979.11]		[1981.03,1984.01]	
FYAAAC	12	199.78	121.01	273.15	125.72	1979.04	2.78E-015	1982.08	1.67E-008
		[9.69]	[13.03]	[12.57]	[26.43]	[1977.04,1979.07]		[1981.07,1983.09]	
FYBAAC	4	186.99	102.33	263.25	157.24	1978.12	2.93E-021	1980.12	0.000734
		[8.91]	[11.79]	[11.19]	[31.59]	[1977.06,1979.02]		[1978.03,1982.06]	
FWAFIT	3	308.09	441.67	206.45	−53.26	1982.10	2.88E-009	1979.12	0.937
		[19.30]	[27.07]	[23.61]	[6.07]	[1982.05,1984.06]		[1974.02,1989.03]	
FYFHA	4	272.71	135.76	404.61	198.03	1979.08	2.78E-021	1982.08	1.23E-010
		[14.89]	[19.37]	[19.01]	[44.77]	[1977.12,1979.09]		[1981.06,1983.08]	
Exchange rates									
EXRUS	2	18.99	12.75	20.33	59.42	1979.06	0.0269	1985.05	0.766
		[0.93]	[2.18]	[1.01]	[28.36]	[1975.12,1980.09]		[1977.08,1994.06]	
EXRGER	1	29.78	21.07	31.36	48.84	1978.09	0.0876	1985.02	0.861
		[1.38]	[3.49]	[1.48]	[25.62]	[1975.02,1980.02]		[1975.02,1998.12]	
EXRSW	1	33.59	23.59	36.11	53.07	1980.01	0.0187	1978.09	0.432
		[1.56]	[3.42]	[1.71]	[23.32]	[1976.11,1982.06]		[1975.02,1980.06]	
EXRJAN	3	30.88	21.49	32.51	51.29	1978.09	0.0942	1978.10	0.999
		[1.47]	[3.79]	[1.57]	[27.68]	[1975.02,1980.03]		[1975.02,1982.03]	
EXRUK	3	26.30	29.75	16.86	−43.33	1993.04	0.000263	1992.11	0.311
		[1.33]	[1.50]	[2.49]	[8.84]	[1992.08,1995.11]		[1991.05,1995.11]	
EXRCAN	12	11.69	11.04	14.08	27.49	1994.08	0.121	1983.04	0.235
		[0.49]	[0.54]	[1.04]	[11.35]	[1988.05,1999.01]		[1981.08,1984.11]	
Producer prices									
PWFSA	9	4.28	4.59	3.14	−31.50	1991.08	0.0337	1974.12	0.000649
		[0.19]	[0.21]	[0.42]	[9.65]	[1989.10,1998.05]		[1973.10,1977.07]	
PWFCSA	9	5.37	5.74	3.96	−30.94	1991.08	0.0246	1974.07	0.000125
		[0.23]	[0.25]	[0.50]	[9.17]	[1989.07,1997.10]		[1973.02,1976.06]	
PWIMSA	4	4.34	4.70	3.04	−35.45	1991.03	0.0202	1974.08	1.79E-012
		[0.21]	[0.24]	[0.45]	[10.18]	[1990.04,1997.11]		[1973.10,1975.11]	
PWCMSA	11	21.61	18.48	31.52	70.51	1990.05	1.35E-007	1973.09	4.17E-011
		[0.97]	[1.08]	[1.92]	[14.37]	[1986.09,1991.03]		[1973.01,1974.05]	
PWFXSA	9	4.52	3.20	4.77	49.33	1973.01	0.113	1973.06	1.91E-005
		[0.22]	[0.56]	[0.24]	[27.01]	[1968.02,1974.03]		[1973.02,1974.02]	
PW160A	12	17.09	22.25	15.60	−29.90	1980.08	0.00662	1981.02	0.0109
		[0.79]	[1.63]	[0.88]	[6.46]	[1978.07,1984.11]		[1980.03,1982.05]	
PW150A	9	16.47	25.30	13.56	−46.39	1981.03	1.48E-008	1981.10	0.315
		[0.86]	[1.62]	[0.93]	[5.02]	[1980.08,1983.04]		[1980.02,1984.04]	
PW561	5	47.85	20.07	99.74	396.87	1986.01	1.95E-046	1990.04	4.86E-012
		[3.13]	[3.22]	[4.41]	[82.77]	[1985.01,1986.02]		[1989.01,1990.06]	
PWCM	9	5.21	5.85	4.45	−23.90	1981.09	0.0268	1974.12	0.0118
		[0.22]	[0.30]	[0.33]	[6.80]	[1978.08,1993.06]		[1973.09,1976.09]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	τ_m	p-value$_m$
PWXFA	9	4.70	3.44	4.92	42.96	1972.11	0.197	1973.12	6.12E-014
		[0.23]	[0.58]	[0.24]	[25.07]	[1968.02,1974.12]		[1973.08,1974.03]	
PSM99Q	12	14.36	10.38	15.13	45.73	1966.07	0.0214	1974.03	0.264
		[0.55]	[1.34]	[0.59]	[19.70]	[1961.08,1968.03]		[1971.08,1976.05]	
PSCCOM	12	19.72	14.14	22.42	58.57	1973.01	2.81E-005	1973.08	0.0470
		[0.81]	[1.38]	[0.96]	[16.90]	[1968.12,1973.10]		[1972.04,1974.04]	
PSCFOO	12	29.86	21.75	33.59	54.46	1972.08	0.000319	1973.08	0.00137
		[1.28]	[2.23]	[1.51]	[17.32]	[1967.09,1973.09]		[1972.07,1974.04]	
PSCMAT	6	20.36	21.94	16.85	−23.17	1987.07	0.0401	1983.10	0.525
		[0.79]	[0.94]	[1.40]	[7.18]	[1984.06,1997.02]		[1981.06,1986.08]	
PZFR	6	20.66	22.46	18.57	−17.33	1988.11	0.358	1981.08	1.50E-008
		[0.96]	[1.31]	[1.41]	[7.90]	[1980.06,1999.12]		[1981.03,1982.02]	
PCGOLD	7	48.37	71.78	38.19	−46.79	1983.04	2.40E-007	1980.01	1.77E-009
		[2.80]	[4.81]	[3.17]	[5.68]	[1982.08,1985.08]		[1979.06,1980.08]	
Consumer prices									
PUNEW	9	2.06	2.26	1.37	−39.52	1991.03	0.000485	1974.06	7.81E-007
		[0.09]	[0.10]	[0.18]	[8.55]	[1990.04,1994.11]		[1973.05,1975.07]	
PU81	12	4.01	5.58	3.10	−44.49	1979.09	1.74E-008	1973.09	1.09E-017
		[0.20]	[0.32]	[0.24]	[5.32]	[1979.02,1982.09]		[1973.05,1974.05]	
PUH	9	2.39	3.20	1.67	−47.97	1983.03	9.74E-009	1981.09	2.17E-008
		[0.13]	[0.17]	[0.17]	[5.93]	[1982.10,1986.02]		[1980.12,1982.02]	
PU83	6	3.77	2.95	5.31	80.42	1986.01	3.40E-012	1991.11	0.00118
		[0.16]	[0.19]	[0.25]	[14.31]	[1983.07,1986.08]		[1989.06,1992.04]	
PU84	8	5.61	4.91	6.24	27.03	1978.12	0.0771	1973.07	0.000923
		[0.24]	[0.35]	[0.33]	[11.24]	[1963.10,1983.07]		[1972.01,1974.10]	
PU85	6	2.11	2.76	1.21	−56.23	1983.04	6.05E-013	1966.02	0.00117
		[0.10]	[0.13]	[0.15]	[5.92]	[1983.01,1985.07]		[1965.12,1967.03]	
PUC	9	3.16	2.63	3.41	29.53	1972.12	0.0779	1981.02	1.21E-005
		[0.13]	[0.23]	[0.16]	[12.91]	[1960.07,1975.08]		[1979.04,1982.01]	
PUCD	12	2.75	3.12	1.89	−39.34	1988.01	1.94E-006	1979.04	9.93E-005
		[0.11]	[0.12]	[0.19]	[6.50]	[1987.03,1990.12]		[1977.11,1980.09]	
PUS	9	2.29	2.98	1.33	−55.36	1983.04	2.93E-015	1980.06	1.54E-006
		[0.10]	[0.13]	[0.15]	[5.38]	[1983.01,1985.02]		[1978.11,1981.08]	
PUXF	9	2.27	2.51	1.43	−43.25	1991.03	4.85E-006	1980.03	4.03E-005
		[0.09]	[0.10]	[0.18]	[7.56]	[1990.07,1993.09]		[1978.06,1981.07]	
PUXHS	12	2.54	2.74	1.78	−34.94	1991.07	0.000945	1974.06	4.67E-006
		[0.10]	[0.11]	[0.21]	[7.94]	[1990.01,1995.03]		[1973.04,1975.07]	
PUXM	9	2.35	2.59	1.48	−42.75	1991.03	1.09E-005	1974.08	1.57E-005
		[0.09]	[0.10]	[0.19]	[7.71]	[1990.06,1993.10]		[1973.08,1976.04]	
GMDC	9	1.58	1.29	1.73	34.06	1973.01	0.0162	1981.02	0.00950
		[0.06]	[0.11]	[0.08]	[12.71]	[1964.12,1976.01]		[1978.04,1982.05]	
GMDCD	12	2.67	2.91	2.38	−18.21	1981.05	0.194	1967.01	9.51E-006
		[0.11]	[0.15]	[0.16]	[7.10]	[1972.05,1999.06]		[1966.08,1967.11]	
GMDCN	9	2.99	2.40	3.27	36.54	1972.12	0.0294	1981.02	1.64E-005
		[0.13]	[0.23]	[0.16]	[14.72]	[1963.07,1975.09]		[1979.03,1982.01]	
GMDCS	9	1.39	0.92	1.61	75.23	1972.12	4.58E-008	1981.09	0.00197
		[0.05]	[0.09]	[0.06]	[19.09]	[1970.04,1973.07]		[1978.10,1982.09]	
Miscellaneous									
PMI	12	2732.04	3159.91	2063.91	−34.68	1984.05	1.21E-005	1991.12	0.895
		[107.69]	[134.33]	[167.85]	[5.99]	[1983.02,1988.06]		[1990.07,1994.12]	
PMP	12	3955.77	4426.83	3166.29	−28.48	1985.01	0.00229	1981.09	0.587
		[159.00]	[197.81]	[256.08]	[6.61]	[1982.12,1991.09]		[1978.07,1985.04]	
PMNO	4	4248.68	4640.82	3608.76	−22.24	1984.10	0.0620	1969.12	0.448
		[177.12]	[223.05]	[284.93]	[7.19]	[1979.06,1996.03]		[1964.04,1975.04]	
PMDEL	12	3475.52	4613.09	2243.97	−51.36	1980.10	7.30E-012	1975.02	0.00611
		[168.69]	[221.62]	[230.59]	[5.52]	[1980.06,1983.05]		[1973.11,1977.06]	
PMNV	12	3501.56	3905.05	2494.30	−36.13	1988.07	3.17E-005	1976.02	0.00148
		[133.30]	[153.94]	[243.23]	[6.72]	[1987.09,1992.02]		[1974.06,1977.09]	
PMEMP	12	3033.66	3372.95	2236.45	−33.69	1988.01	0.000162	1969.04	0.182
		[116.83]	[136.57]	[209.35]	[6.76]	[1986.08,1992.02]		[1967.03,1971.01]	
PMCP	12	4424.46	4628.40	3465.43	−25.13	1992.12	0.178	1973.08	0.00564
		[185.24]	[202.77]	[439.70]	[10.05]	[1990.04,1999.12]		[1972.05,1976.01]	
HHSNTN	0	3914.23	2215.68	5321.04	140.15	1978.02	1.18E-020	1990.10	0.718
		[173.44]	[235.35]	[214.18]	[27.28]	[1976.08,1978.04]		[1960.02,1999.12]	
F6EDM	12	63.24	91.83	55.63	−39.42	1972.05	4.48E-006	1973.01	2.03E-020
		[2.88]	[6.08]	[3.13]	[5.27]	[1971.07,1976.04]		[1972.09,1973.09]	
FTMC6	12	108.12	84.69	116.24	37.25	1973.07	0.0305	1981.09	0.000519
		[4.49]	[8.74]	[5.15]	[15.40]	[1967.05,1976.04]		[1980.10,1982.08]	
FTMM6	5	62.46	77.39	33.35	−56.90	1988.02	9.45E-011	1986.11	0.000339
		[3.13]	[3.63]	[5.08]	[6.87]	[1987.12,1990.02]		[1986.08,1988.03]	

Results for SupW tests for structural change in conditional volatility for individual series when using a linear AR model with a single structural change for the conditional mean, and SupW tests for structural change in the conditional mean. The column headed σ_0 contains the estimate of the conditional standard deviation under the null hypothesis of constant volatility. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation before and after the volatility break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated break date for the variance (mean) is given in the column headed τ_v (τ_m), with the 90% confidence interval for the break date given in brackets. The column headed p-value$_v$ (p-value$_m$) contains the asymptotic p-value of the corresponding SupW test. Figures in brackets below parameter estimates are standard errors.

Table A.3: Tests for nonlinearity in conditional mean and tests for structural change in conditional variance

Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production								
IP	3	7.56	8.81	5.65	−35.85	1984.03	1.50E-005	1.34E-021
		[0.31]	[0.39]	[0.49]	[6.22]	[1982.11,1988.04]		
IPP	3	7.86	8.38	5.64	−32.73	1992.06	0.00394	8.25E-021
		[0.29]	[0.32]	[0.66]	[8.27]	[1991.02,1996.07]		
IPF	3	8.50	8.97	6.45	−28.10	1992.06	0.0263	1.23E-020
		[0.31]	[0.35]	[0.72]	[8.47]	[1990.03,1998.01]		
IPC	0	10.28	11.68	8.78	−24.84	1980.09	0.00608	9.99E-011
		[0.41]	[0.56]	[0.58]	[6.09]	[1977.08,1989.04]		
IPCD	1	25.82	27.46	23.51	−14.38	1983.05	0.606	1.68E-012
		[1.18]	[1.53]	[1.82]	[8.17]	[1964.05,1999.12]		
IPCN	2	8.50	8.96	7.05	−21.27	1990.05	0.0741	9.87E-006
		[0.29]	[0.34]	[0.60]	[7.29]	[1985.07,1998.09]		
IPE	5	11.93	12.62	9.05	−28.28	1992.04	0.0394	8.97E-013
		[0.47]	[0.52]	[1.06]	[8.91]	[1989.05,1998.05]		
IPI	3	9.78	10.62	6.16	−42.02	1992.06	5.21E-005	2.53E-014
		[0.37]	[0.40]	[0.84]	[8.20]	[1991.10,1995.01]		
IPM	12	9.65	11.33	6.45	−43.03	1986.03	4.83E-007	7.17E-016
		[0.42]	[0.50]	[0.69]	[6.61]	[1985.07,1989.05]		
IPMD	12	14.19	16.86	10.16	−39.75	1984.01	4.25E-007	4.38E-017
		[0.59]	[0.74]	[0.91]	[6.00]	[1983.05,1987.07]		
IPMND	10	11.80	12.94	9.90	−23.54	1984.12	0.0150	2.09E-015
		[0.45]	[0.56]	[0.72]	[6.46]	[1981.05,1993.05]		
IPMFG	3	8.33	9.66	6.33	−34.50	1984.01	5.51E-005	1.84E-022
		[0.35]	[0.44]	[0.54]	[6.34]	[1982.09,1988.10]		
IPD	3	11.12	12.86	8.50	−33.89	1984.01	0.000240	1.28E-021
		[0.49]	[0.62]	[0.76]	[6.70]	[1982.01,1989.02]		
IPN	3	8.00	8.72	5.68	−34.87	1990.06	0.000469	2.50E-013
		[0.31]	[0.34]	[0.62]	[7.53]	[1989.06,1994.06]		
IPMIN	1	13.15	14.39	10.60	−26.32	1986.11	0.0250	0.0206
		[0.56]	[0.68]	[0.98]	[7.63]	[1983.06,1995.07]		
IPUT	10	17.38	11.86	20.23	70.59	1973.08	2.14E-006	0.350
		[0.75]	[1.25]	[0.90]	[19.53]	[1970.01,1974.03]		
IPX	3	594.92	717.85	468.74	−34.70	1984.03	9.38E-005	5.75E-017
		[27.42]	[37.48]	[37.97]	[6.29]	[1982.12,1988.09]		
IPXMCA	3	678.37	789.34	511.05	−35.26	1984.01	3.11E-005	8.14E-019
		[28.47]	[35.82]	[43.99]	[6.30]	[1982.10,1988.07]		
IPXDCA	3	839.60	1003.46	674.88	−32.74	1984.01	0.00105	4.12E-016
		[40.95]	[56.61]	[56.76]	[6.81]	[1981.12,1989.05]		
IPXNCA	3	663.01	752.32	457.45	−39.19	1990.04	1.56E-005	8.46E-011
		[27.72]	[32.15]	[48.78]	[6.99]	[1989.07,1993.02]		
IPXMIN	1	1196.52	1377.53	935.95	−32.06	1986.11	0.00227	0.0194
		[56.80]	[72.51]	[87.00]	[7.26]	[1985.01,1992.07]		
IPXUT	6	1623.00	1339.03	1869.57	39.62	1982.11	0.00862	0.0550
		[76.39]	[110.28]	[102.76]	[13.82]	[1975.11,1985.08]		
GMPYQ	9	4.18	4.33	3.38	−21.93	1993.07	0.465	9.66E-009
		[0.19]	[0.20]	[0.47]	[11.42]	[1987.05,1999.12]		
GMYXPQ	9	3.97	3.41	4.17	22.22	1970.06	0.272	2.56E-015
		[0.15]	[0.30]	[0.18]	[11.88]	[1960.02,1979.09]		
(Un)employment								
LHEL	12	2105.27	1953.31	2964.25	51.76	1993.12	6.11E-005	5.44E-012
		[77.64]	[82.31]	[195.69]	[11.89]	[1990.10,1995.05]		
LHELX	4	44.64	53.46	35.18	−34.21	1980.09	5.65E-005	1.26E-013
		[1.96]	[2.66]	[2.75]	[6.10]	[1979.06,1986.03]		
LHEM	8	3.11	3.52	2.33	−33.85	1986.02	0.000221	1.25E-009
		[0.13]	[0.16]	[0.22]	[6.79]	[1984.07,1990.11]		
LHNAG	8	2.95	3.27	2.37	−27.61	1985.09	0.00345	1.77E-009
		[0.12]	[0.14]	[0.19]	[6.65]	[1982.12,1992.02]		
LHUR	12	176.13	187.96	153.63	−18.26	1986.03	0.158	2.75E-018
		[6.68]	[8.20]	[11.31]	[6.99]	[1979.12,1999.12]		
LHU680	7	523.05	754.62	481.42	−36.20	1966.02	1.27E-005	0.00813
		[19.81]	[49.43]	[20.96]	[5.02]	[1964.10,1968.08]		
LHU5	12	46.56	59.53	42.08	−29.31	1970.04	0.00147	3.07E-010
		[1.93]	[3.75]	[2.20]	[5.79]	[1967.06,1975.12]		
LHU14	5	55.96	67.34	48.74	−27.63	1975.07	0.000271	2.02E-016
		[2.09]	[3.29]	[2.62]	[5.25]	[1973.02,1981.04]		
LHU15	4	57.08	75.33	50.21	−33.35	1970.12	1.72E-006	1.42E-009
		[2.11]	[3.91]	[2.40]	[4.70]	[1969.04,1974.02]		
LHU26	4	87.12	108.43	79.09	−27.06	1970.12	0.000879	8.76E-010
		[3.21]	[6.03]	[3.70]	[5.30]	[1967.12,1976.01]		
LHU27	7	75.24	98.03	59.32	−39.49	1976.06	2.42E-009	2.20E-006
		[3.02]	[4.52]	[3.78]	[4.76]	[1975.07,1979.06]		
LHCH	12	216.48	201.34	299.40	48.70	1989.09	0.00233	0.0102
		[9.27]	[9.90]	[23.17]	[13.63]	[1986.07,1991.11]		

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	1.74	2.25	1.16	−48.30	1981.05	2.03E-013	1.95E-022
		[0.07]	[0.09]	[0.10]	[4.98]	[1980.11,1983.06]		
LP	3	2.00	2.53	1.20	−52.51	1984.02	8.96E-013	3.70E-023
		[0.09]	[0.11]	[0.13]	[5.69]	[1983.10,1986.02]		
LPGD	3	3.64	4.51	2.33	−48.39	1984.02	4.93E-009	1.53E-023
		[0.17]	[0.21]	[0.26]	[6.30]	[1983.09,1987.01]		
LPMI	12	8.27	9.14	5.78	−36.76	1989.08	0.00952	8.93E-006
		[0.43]	[0.49]	[0.83]	[9.68]	[1988.07,1996.04]		
LPCC	5	10.14	12.87	6.00	−53.40	1984.02	5.03E-009	1.17E-007
		[0.54]	[0.67]	[0.83]	[6.86]	[1983.10,1987.02]		
LPEM	3	3.37	4.15	2.21	−46.68	1983.11	4.56E-007	6.02E-022
		[0.17]	[0.22]	[0.26]	[6.89]	[1983.05,1987.08]		
LPED	5	4.69	5.70	3.19	−44.01	1983.11	3.76E-005	2.68E-021
		[0.26]	[0.33]	[0.40]	[7.69]	[1983.03,1988.12]		
LPEN	2	2.62	3.30	1.73	−47.61	1982.08	1.45E-010	3.49E-017
		[0.12]	[0.15]	[0.17]	[5.64]	[1982.03,1985.03]		
LPSP	6	1.42	1.71	1.07	−37.64	1981.10	9.99E-008	1.27E-012
		[0.06]	[0.07]	[0.08]	[5.35]	[1980.09,1984.12]		
LPTU	12	4.32	5.87	3.66	−37.58	1971.12	0.000676	2.13E-007
		[0.24]	[0.44]	[0.29]	[6.75]	[1969.03,1977.07]		
LPT	12	2.30	2.69	1.64	−39.11	1985.03	1.34E-006	3.21E-010
		[0.09]	[0.12]	[0.15]	[6.21]	[1984.05,1988.09]		
LPFR	10	1.37	1.55	1.16	−25.31	1981.06	0.00233	0.0512
		[0.05]	[0.07]	[0.07]	[5.80]	[1978.04,1988.04]		
LPS	10	1.83	2.20	1.46	−33.48	1980.03	1.02E-005	0.000348
		[0.07]	[0.10]	[0.10]	[5.55]	[1978.12,1984.12]		
LPGOV	12	2.40	2.74	1.12	−58.99	1991.06	2.34E-006	0.00304
		[0.13]	[0.14]	[0.26]	[9.88]	[1991.04,1993.12]		
LW	4	116.38	138.49	89.22	−35.58	1984.04	8.67E-005	7.90E-008
		[5.37]	[7.04]	[7.81]	[6.52]	[1982.04,1988.05]		
LPHRM	12	228.46	271.35	162.08	−40.27	1984.04	1.44E-005	5.19E-007
		[10.82]	[13.52]	[16.82]	[6.88]	[1983.05,1988.09]		
LPMOSA	12	131.86	149.28	106.50	−28.66	1983.09	0.00541	6.11E-007
		[5.83]	[7.46]	[9.01]	[7.01]	[1980.05,1991.01]		
Wages and salaries								
LEH	12	2.36	2.88	1.17	−59.16	1989.05	2.55E-012	0.133
		[0.11]	[0.12]	[0.19]	[6.78]	[1989.03,1990.12]		
LEHCC	11	5.62	6.34	3.90	−38.40	1988.03	0.000168	0.563
		[0.25]	[0.29]	[0.45]	[7.65]	[1986.11,1992.04]		
LEHM	11	3.28	3.96	2.44	−38.52	1982.03	7.93E-006	0.285
		[0.15]	[0.20]	[0.22]	[6.32]	[1980.11,1986.06]		
LEHTU	11	4.22	5.27	2.97	−43.59	1984.02	8.80E-008	0.457
		[0.20]	[0.26]	[0.28]	[6.04]	[1983.07,1987.04]		
LEHTT	9	2.73	3.22	1.97	−38.87	1986.05	1.94E-006	0.0744
		[0.12]	[0.14]	[0.18]	[6.20]	[1985.08,1989.08]		
LEHFR	12	4.50	5.31	2.78	−47.65	1988.10	2.58E-009	0.0303
		[0.19]	[0.22]	[0.32]	[6.36]	[1988.04,1990.09]		
LEHS	12	3.18	3.91	1.57	−59.86	1989.02	7.49E-017	0.0889
		[0.13]	[0.15]	[0.22]	[5.84]	[1988.12,1990.04]		
Construction								
HSFR	12	82.68	88.56	57.27	−35.33	1992.06	0.00486	0.000532
		[3.36]	[3.68]	[7.65]	[9.04]	[1990.11,1996.08]		
HSNE	4	185.26	202.26	159.17	−21.30	1984.03	0.0639	0.693
		[7.48]	[9.53]	[11.80]	[6.91]	[1979.09,1996.09]		
HSMW	3	163.56	175.70	120.81	−31.24	1991.02	0.0148	0.782
		[6.88]	[7.70]	[14.45]	[8.76]	[1989.07,1997.02]		
HSSOU	12	98.13	103.79	78.46	−24.41	1991.01	0.0971	0.0110
		[3.98]	[4.48]	[8.35]	[8.69]	[1987.03,1999.12]		
HSWST	2	132.96	142.52	116.94	−17.95	1985.01	0.107	0.00667
		[4.74]	[5.95]	[7.70]	[6.40]	[1977.10,1997.08]		
HSBR	2	68.62	75.73	43.28	−42.85	1991.03	8.84E-005	0.0384
		[2.93]	[3.24]	[6.12]	[8.45]	[1990.09,1994.06]		
HSBNE	4	123.63	137.86	100.75	−26.92	1985.01	0.0102	0.116
		[5.27]	[6.63]	[8.40]	[7.04]	[1981.08,1992.10]		
HSBMW	12	108.64	121.96	67.87	−44.35	1990.05	4.21E-005	0.00946
		[4.93]	[5.54]	[9.70]	[8.35]	[1989.08,1993.07]		
HSBSOU	12	79.16	65.97	82.85	25.59	1969.07	0.261	1.63E-006
		[3.18]	[6.76]	[3.57]	[13.96]	[1961.02,1975.12]		
HSBWST	1	100.60	109.48	82.02	−25.08	1987.05	0.0355	0.0195
		[4.24]	[5.11]	[7.39]	[7.60]	[1984.08,1996.12]		
HNS	2	84.44	76.28	90.74	18.96	1979.09	0.266	0.467
		[3.28]	[4.94]	[4.35]	[9.59]	[1964.02,1989.11]		
HNSNE	12	186.60	150.15	197.79	31.73	1980.02	0.177	0.171
		[8.48]	[17.34]	[9.60]	[16.50]	[1974.02,1983.11]		
HNSMW	11	132.41	108.82	137.14	26.02	1978.05	0.592	0.00386
		[6.32]	[15.38]	[6.89]	[18.90]	[1974.02,1986.01]		

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	104.69	114.63	67.82	−40.83	1994.06	0.000963	0.0123
		[4.77]	[5.23]	[10.08]	[9.20]	[1993.03,1996.10]		
HNSWST	12	129.77	138.17	90.65	−34.40	1995.05	0.0529	0.0884
		[6.31]	[6.86]	[14.80]	[11.20]	[1994.02,1999.08]		
HNR	4	586.09	632.32	418.08	−33.88	1992.03	0.00582	0.00236
		[24.61]	[27.37]	[52.18]	[8.73]	[1990.06,1996.07]		
HMOB	3	52.41	65.72	38.13	−41.98	1980.09	7.92E-009	0.000301
		[2.25]	[3.00]	[3.11]	[5.42]	[1979.11,1983.10]		
CONTC	1	17.82	21.18	13.77	−35.00	1984.02	1.42E-005	6.21E-007
		[0.75]	[0.99]	[1.08]	[5.94]	[1982.09,1987.11]		
CONPC	6	17.71	22.78	14.96	−34.32	1977.04	2.50E-005	1.97E-005
		[0.78]	[1.27]	[0.94]	[5.51]	[1975.11,1981.10]		
CONQC	2	35.32	40.90	29.15	−28.73	1983.05	0.00191	0.258
		[1.51]	[2.05]	[2.16]	[6.38]	[1980.09,1989.04]		
CONDO9	9	91.31	71.92	96.24	33.81	1968.02	0.0858	4.81E-006
		[3.62]	[7.97]	[4.02]	[15.85]	[1960.02,1970.11]		
Trade								
MSMTQ	12	10.58	11.45	7.69	−32.85	1990.09	0.000739	3.63E-017
		[0.39]	[0.43]	[0.79]	[7.33]	[1989.03,1994.07]		
MSMQ	12	14.49	16.14	12.70	−21.28	1980.10	0.0187	4.31E-016
		[0.53]	[0.73]	[0.76]	[5.87]	[1976.03,1990.07]		
MSDQ	12	20.68	23.39	17.74	−24.13	1980.10	0.00526	8.02E-017
		[0.78]	[1.07]	[1.11]	[5.87]	[1976.10,1988.04]		
MSNQ	3	12.54	13.89	10.99	−20.92	1981.05	0.0290	1.09E-006
		[0.47]	[0.63]	[0.68]	[6.07]	[1976.09,1992.02]		
WTQ	3	15.39	17.45	11.06	−36.61	1987.02	2.38E-005	2.99E-007
		[0.62]	[0.73]	[1.06]	[6.63]	[1985.12,1990.11]		
WTDQ	5	17.23	18.33	11.74	−35.95	1993.04	0.00262	5.85E-011
		[0.65]	[0.70]	[1.56]	[8.84]	[1991.12,1996.09]		
WTNQ	4	21.14	24.37	16.85	−30.86	1982.10	0.000124	0.0941
		[0.83]	[1.07]	[1.23]	[5.90]	[1981.04,1988.02]		
RTQ	11	12.64	13.85	8.33	−39.84	1991.03	0.000222	1.30E-007
		[0.52]	[0.58]	[1.09]	[8.26]	[1990.07,1994.09]		
RTDQ	2	28.88	32.87	16.25	−50.56	1990.05	4.57E-007	4.71E-009
		[1.28]	[1.42]	[2.54]	[8.01]	[1990.01,1992.10]		
RTNQ	12	8.67	10.67	7.11	−33.40	1977.07	1.52E-006	0.0214
		[0.33]	[0.49]	[0.43]	[5.04]	[1976.03,1981.08]		
Inventories								
IVMTQ	3	3.87	4.15	2.83	−31.76	1991.05	0.00187	4.98E-005
		[0.14]	[0.15]	[0.30]	[7.57]	[1989.10,1995.06]		
IVMFGQ	12	4.08	4.41	3.42	−22.54	1986.09	0.0209	0.000969
		[0.15]	[0.18]	[0.25]	[6.48]	[1982.02,1994.06]		
IVMFDQ	12	5.09	6.02	4.72	−21.61	1971.03	0.0470	0.000534
		[0.20]	[0.37]	[0.23]	[6.21]	[1966.05,1983.02]		
IVMFNQ	2	5.31	5.83	4.22	−27.60	1986.12	0.00260	0.363
		[0.20]	[0.24]	[0.34]	[6.57]	[1984.04,1992.09]		
IVWRQ	12	8.07	9.23	6.11	−33.88	1985.02	6.43E-006	0.0339
		[0.30]	[0.37]	[0.47]	[5.77]	[1983.08,1988.08]		
IVRRQ	12	8.27	8.93	6.22	−30.34	1990.03	0.00494	0.000358
		[0.32]	[0.36]	[0.64]	[7.70]	[1988.04,1995.06]		
IVSRQ	12	15.88	16.97	10.54	−37.86	1993.03	0.000919	2.02E-006
		[0.59]	[0.64]	[1.42]	[8.67]	[1992.03,1996.04]		
IVSRMQ	12	23.84	25.39	16.45	−35.20	1993.01	0.00262	5.00E-008
		[0.89]	[0.96]	[2.11]	[8.65]	[1992.03,1996.10]		
IVSRWQ	2	19.98	15.01	20.85	38.91	1965.12	0.0716	4.08E-006
		[0.75]	[1.93]	[0.80]	[18.63]	[1960.02,1968.06]		
IVSRRQ	5	19.86	20.95	14.12	−32.59	1993.08	0.0492	0.000809
		[0.86]	[0.92]	[2.13]	[10.60]	[1992.03,1999.06]		
Orders								
MOCMQ	12	26.39	28.21	19.04	−32.51	1992.01	0.00270	1.45E-011
		[0.96]	[1.06]	[2.13]	[7.97]	[1990.11,1996.03]		
MDOQ	6	35.42	37.41	27.47	−26.57	1991.12	0.0176	9.96E-012
		[1.22]	[1.35]	[2.70]	[7.68]	[1989.10,1997.06]		
MSONDQ	9	73.04	46.12	78.52	70.25	1966.10	0.000241	7.22E-005
		[2.78]	[6.63]	[2.99]	[25.31]	[1964.01,1967.06]		
MO	6	21.40	22.29	16.91	−24.13	1993.05	0.0974	1.44E-007
		[0.75]	[0.82]	[1.84]	[8.71]	[1990.05,1999.12]		
MOWU	6	30.86	32.27	23.89	−25.97	1993.03	0.0521	3.09E-007
		[1.09]	[1.18]	[2.62]	[8.55]	[1990.03,1999.01]		
MDO	6	35.53	37.39	28.10	−24.83	1991.12	0.0355	8.95E-009
		[1.23]	[1.36]	[2.71]	[7.76]	[1989.06,1998.04]		
MDUWU	6	37.60	39.17	29.86	−23.76	1993.03	0.0979	7.06E-007
		[1.32]	[1.43]	[3.18]	[8.58]	[1989.10,1999.12]		
MNO	12	13.02	13.71	9.36	−31.75	1993.08	0.0333	0.00821
		[0.52]	[0.56]	[1.30]	[9.86]	[1992.03,1998.11]		

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	20.38	22.17	18.45	−16.79	1980.10	0.119	0.146
		[0.72]	[1.00]	[1.04]	[5.99]	[1972.12,1995.10]		
MU	3	7.85	8.93	7.52	−15.87	1969.06	0.321	0.0677
		[0.29]	[0.59]	[0.33]	[6.69]	[1960.02,1987.05]		
MDU	3	8.18	9.38	7.81	−16.74	1969.06	0.254	0.0844
		[0.30]	[0.62]	[0.34]	[6.59]	[1960.08,1986.08]		
MNU	12	17.42	19.12	15.61	−18.38	1980.08	0.0751	0.00924
		[0.64]	[0.88]	[0.91]	[6.06]	[1973.05,1993.04]		
MPCON	5	74.89	49.19	79.81	62.25	1966.06	0.000425	0.000119
		[2.65]	[6.49]	[2.84]	[22.17]	[1963.07,1966.12]		
MPCONQ	9	73.70	53.19	77.33	45.38	1966.01	0.0106	8.79E-006
		[2.53]	[6.44]	[2.71]	[18.32]	[1962.01,1967.04]		
Consumption								
GMCQ	8	6.16	6.73	3.88	−42.28	1992.01	2.63E-005	6.39E-009
		[0.24]	[0.26]	[0.52]	[7.97]	[1991.03,1994.07]		
GMCDQ	8	29.16	31.76	19.67	−38.07	1991.05	0.000798	2.71E-009
		[1.21]	[1.35]	[2.57]	[8.51]	[1990.09,1995.05]		
GMCNQ	12	7.22	8.12	5.72	−29.55	1984.12	0.000796	0.00233
		[0.28]	[0.35]	[0.45]	[6.38]	[1982.08,1990.06]		
GMCSQ	10	3.69	2.82	4.06	44.07	1971.11	0.00157	0.00559
		[0.14]	[0.26]	[0.17]	[14.62]	[1966.07,1973.08]		
GMCANQ	5	77.81	84.66	52.48	−38.01	1991.06	0.00528	4.97E-006
		[3.65]	[4.05]	[7.79]	[9.67]	[1990.10,1996.08]		
Money and credit								
FM1	9	4.43	3.46	5.32	53.89	1979.03	2.82E-006	0.0676
		[0.18]	[0.25]	[0.24]	[13.10]	[1975.06,1980.10]		
FM2	12	2.35	1.43	2.52	76.75	1966.04	0.00174	0.501
		[0.10]	[0.25]	[0.11]	[32.30]	[1962.11,1966.08]		
FM3	8	2.56	1.53	2.75	79.53	1966.04	8.56E-005	0.0368
		[0.10]	[0.24]	[0.10]	[28.76]	[1963.11,1966.10]		
FML	12	3.34	2.97	3.91	31.72	1983.09	0.00156	0.437
		[0.12]	[0.15]	[0.18]	[8.99]	[1977.11,1987.03]		
FM2DQ	10	2.99	2.30	3.22	39.91	1970.01	0.0135	0.406
		[0.12]	[0.24]	[0.14]	[15.47]	[1963.08,1972.04]		
FMFBA	11	2.56	2.73	2.45	−10.29	1975.12	0.812	0.0977
		[0.10]	[0.16]	[0.13]	[7.02]	[1960.02,1999.12]		
FMBASE	12	3.99	3.54	4.43	25.14	1979.09	0.0612	0.812
		[0.16]	[0.22]	[0.22]	[9.98]	[1966.11,1985.09]		
FMRRA	11	10.34	9.16	11.30	23.38	1977.12	0.0687	0.00547
		[0.38]	[0.57]	[0.51]	[9.44]	[1965.10,1984.09]		
FMRNBA	1	17.90	11.78	20.01	69.79	1970.04	0.000896	0.452
		[0.88]	[1.71]	[1.01]	[26.11]	[1965.05,1970.09]		
FMRNBC	1	15.62	10.11	17.15	69.69	1968.01	0.00108	0.152
		[0.72]	[1.52]	[0.80]	[26.78]	[1964.02,1968.08]		
FCLS	2	3.96	3.70	5.13	38.49	1995.03	0.0401	0.614
		[0.19]	[0.20]	[0.43]	[13.80]	[1987.12,1997.03]		
FCSGV	3	10.04	11.37	8.67	−23.76	1987.03	0.0731	0.546
		[0.49]	[0.68]	[0.69]	[7.59]	[1982.12,1995.11]		
FCLRE	3	2.87	2.51	4.76	89.31	1995.11	2.90E-006	0.0189
		[0.16]	[0.17]	[0.38]	[19.71]	[1992.11,1996.04]		
FCLIN	3	4.01	3.57	6.46	80.74	1996.01	5.25E-006	0.0156
		[0.20]	[0.21]	[0.51]	[17.78]	[1994.01,1996.09]		
FCLNBF	1	19.50	16.28	24.01	47.48	1985.09	0.00330	0.501
		[1.03]	[1.31]	[1.55]	[15.26]	[1981.10,1987.05]		
FCLNQ	7	8.82	5.94	9.86	65.96	1970.09	3.67E-006	0.0174
		[0.33]	[0.63]	[0.38]	[18.70]	[1967.11,1971.08]		
FCLBMC	8	30126.67	10746.41	48948.65	355.49	1979.09	4.77E-040	0.242
		[1657.29]	[2007.24]	[1978.12]	[87.05]	[1978.10,1979.10]		
CCI30M	12	83.71	50.35	107.47	113.43	1974.11	1.79E-011	0.00754
		[4.10]	[5.99]	[5.06]	[27.31]	[1972.08,1975.01]		
CCINT	8	2373329.58	623489.93	2796974.96	348.60	1979.11	9.54E-008	.
		[154390.63]	[325846.54]	[160330.16]	[235.85]	[1979.07,1979.11]		
CCINV	7	1156944.82	488030.12	1493532.47	206.03	1982.08	7.16E-012	0.0140
		[71092.04]	[110671.94]	[78505.71]	[71.24]	[1981.07,1982.09]		
Stock prices								
FSNCOM	2	37.32	39.62	29.20	−26.29	1991.02	0.0614	0.448
		[1.53]	[1.72]	[3.22]	[8.73]	[1987.07,1998.11]		
FSNIN	2	39.79	43.75	29.01	−33.68	1991.02	0.00525	0.330
		[1.81]	[2.08]	[3.44]	[8.47]	[1989.05,1995.10]		
FSNTR	2	56.26	61.18	42.86	−29.94	1991.02	0.00605	0.351
		[2.28]	[2.62]	[4.32]	[7.68]	[1988.10,1995.09]		
FSNUT	5	35.15	44.69	31.56	−29.37	1976.01	0.000616	0.988
		[1.41]	[2.64]	[1.62]	[5.53]	[1974.03,1981.03]		
FSNFI	2	51.39	61.21	48.24	−21.19	1975.01	0.125	0.199
		[2.19]	[4.40]	[2.49]	[6.98]	[1968.10,1984.05]		

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	36.74	38.62	30.13	−21.99	1991.02	0.197	0.497
		[1.51]	[1.70]	[3.19]	[8.94]	[1984.11,1999.12]		
FSPIN	2	37.53	39.57	30.36	−23.28	1991.02	0.143	0.510
		[1.54]	[1.73]	[3.25]	[8.86]	[1986.02,1999.12]		
FSPCAP	1	44.85	37.75	47.30	25.32	1970.04	0.194	0.264
		[1.78]	[3.49]	[2.05]	[12.81]	[1960.02,1977.12]		
FSPTR	2	54.81	59.28	44.50	−24.93	1991.03	0.0583	0.919
		[2.39]	[2.83]	[4.29]	[8.07]	[1987.06,1998.01]		
FSPUT	5	36.38	26.75	38.25	42.98	1966.07	0.0321	0.984
		[1.39]	[3.40]	[1.50]	[19.02]	[1961.07,1969.05]		
FSPFI	2	55.97	54.62	63.44	16.16	1995.07	0.854	0.155
		[2.42]	[2.63]	[6.18]	[12.62]	[1974.06,1999.12]		
Dividends and volume								
FSDXP	1	39.57	32.76	41.80	27.59	1969.11	0.209	0.493
		[1.69]	[3.38]	[1.93]	[14.41]	[1960.02,1975.04]		
FSPXE	4	44.25	46.26	37.20	−19.58	1991.02	0.334	0.747
		[1.83]	[2.06]	[3.86]	[9.09]	[1981.09,1999.12]		
FSNVV3	12	34.66	54.80	25.09	−54.22	1982.04	2.13E-014	0.431
		[1.90]	[3.00]	[2.07]	[4.53]	[1981.12,1983.08]		
Interest rates								
FYFF	12	437.38	537.38	218.07	−59.42	1987.06	7.11E-007	2.31E-014
		[27.14]	[31.71]	[46.96]	[9.06]	[1987.04,1990.01]		
FYCP	12	437.54	191.13	517.99	171.02	1969.04	1.24E-007	1.27E-010
		[24.61]	[47.77]	[27.30]	[69.23]	[1967.10,1969.05]		
FYGM3	12	381.19	458.87	224.86	−51.00	1986.09	2.15E-006	2.52E-013
		[20.90]	[24.82]	[35.21]	[8.12]	[1986.06,1990.05]		
FYGM6	12	375.06	446.54	248.63	−44.32	1985.07	1.59E-005	2.23E-012
		[19.34]	[23.59]	[31.37]	[7.62]	[1985.02,1990.01]		
FYGT1	12	403.96	209.43	463.33	121.23	1969.05	6.92E-008	1.51E-013
		[18.46]	[36.80]	[20.33]	[40.07]	[1967.03,1969.09]		
FYGT5	6	327.05	149.38	381.91	155.66	1969.06	3.42E-011	6.83E-007
		[14.44]	[28.25]	[15.70]	[49.47]	[1967.11,1969.08]		
FYGT10	12	278.61	189.65	362.17	90.97	1979.05	2.06E-012	1.38E-007
		[12.04]	[16.35]	[15.85]	[18.46]	[1977.01,1979.10]		
FYAAAC	12	197.22	111.75	279.52	150.12	1979.08	3.21E-019	2.93E-011
		[9.70]	[12.72]	[12.48]	[30.57]	[1977.12,1979.10]		
FYBAAC	4	187.46	101.08	270.65	167.77	1979.08	2.47E-023	0.00157
		[9.05]	[11.67]	[11.46]	[32.94]	[1978.03,1979.10]		
FWAFIT	3	305.37	431.17	209.66	−51.37	1982.10	1.85E-008	0.0150
		[18.90]	[26.68]	[23.28]	[6.18]	[1982.04,1984.07]		
FYFHA	4	273.52	127.12	414.51	226.06	1979.08	2.79E-024	2.97E-010
		[15.09]	[19.40]	[19.04]	[51.95]	[1978.03,1979.09]		
Exchange rates								
EXRUS	2	19.10	12.12	20.60	69.99	1979.06	0.00883	0.839
		[0.94]	[2.19]	[1.02]	[31.85]	[1976.08,1980.05]		
EXRGER	1	29.92	19.48	31.81	63.32	1978.09	0.0192	0.591
		[1.39]	[3.47]	[1.48]	[30.10]	[1975.12,1979.09]		
EXRSW	1	34.13	25.85	36.21	40.10	1980.01	0.0900	0.815
		[1.55]	[3.43]	[1.72]	[19.73]	[1975.07,1983.12]		
EXRJAN	3	30.92	21.41	32.56	52.04	1978.09	0.0903	0.813
		[1.48]	[3.81]	[1.58]	[28.03]	[1975.02,1980.07]		
EXRUK	3	27.13	30.44	18.07	−40.63	1993.04	0.000527	0.855
		[1.32]	[1.50]	[2.48]	[8.65]	[1992.08,1996.02]		
EXRCAN	12	11.93	11.30	14.25	26.13	1994.08	0.170	0.673
		[0.50]	[0.56]	[1.08]	[11.44]	[1988.01,1999.10]		
Producer prices								
PWFSA	9	4.42	4.75	3.17	−33.22	1991.07	0.0189	0.582
		[0.20]	[0.22]	[0.43]	[9.54]	[1990.02,1997.09]		
PWFCSA	9	5.49	5.87	4.04	−31.13	1991.08	0.0284	0.400
		[0.24]	[0.27]	[0.52]	[9.36]	[1989.12,1998.03]		
PWIMSA	4	4.58	3.18	5.22	64.00	1972.08	0.000551	0.00749
		[0.23]	[0.40]	[0.27]	[22.07]	[1967.02,1973.03]		
PWCMSA	11	21.17	18.17	30.89	70.00	1990.07	6.26E-006	8.19E-006
		[1.06]	[1.18]	[2.13]	[16.10]	[1987.02,1992.01]		
PWFXSA	9	4.48	2.49	4.84	94.19	1973.01	0.00482	0.00184
		[0.24]	[0.58]	[0.25]	[46.62]	[1969.12,1973.07]		
PW160A	12	17.65	23.09	16.08	−30.36	1980.08	0.00389	0.0785
		[0.80]	[1.65]	[0.88]	[6.27]	[1978.08,1984.03]		
PW150A	9	16.52	24.80	13.80	−44.34	1981.03	5.49E-007	0.330
		[0.88]	[1.68]	[0.96]	[5.41]	[1980.08,1983.10]		
PW561	5	54.64	28.53	103.44	262.61	1986.01	4.42E-038	0.000930
		[3.15]	[3.35]	[4.57]	[45.45]	[1984.11,1986.02]		
PWCM	9	5.29	3.84	5.69	48.12	1968.09	0.00812	0.000228
		[0.22]	[0.46]	[0.24]	[18.92]	[1963.05,1970.02]		

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	4.90	6.32	4.51	−28.69	1974.12	0.0283	5.05E-007
		[0.24]	[0.51]	[0.27]	[7.17]	[1972.06,1984.01]		
PSM99Q	12	14.05	10.59	15.52	46.49	1971.12	0.00101	0.00391
		[0.56]	[1.00]	[0.65]	[15.19]	[1967.02,1974.02]		
PSCCOM	12	19.15	14.09	21.55	52.97	1972.11	0.000460	0.000375
		[0.83]	[1.43]	[0.98]	[17.01]	[1967.08,1973.10]		
PSCFOO	12	29.61	21.15	33.62	58.97	1972.11	0.000409	0.170
		[1.37]	[2.37]	[1.63]	[19.43]	[1967.06,1973.06]		
PSCMAT	6	20.04	21.39	17.04	−20.32	1987.07	0.108	0.000242
		[0.77]	[0.92]	[1.37]	[7.28]	[1982.10,1999.10]		
PZFR	6	21.76	29.36	20.42	−30.45	1979.08	0.0443	0.0615
		[1.09]	[2.77]	[1.16]	[7.66]	[1977.10,1985.06]		
PCGOLD	7	49.53	71.99	39.92	−44.55	1983.03	1.65E-005	0.000304
		[3.04]	[5.33]	[3.49]	[6.35]	[1982.06,1986.07]		
Consumer prices								
PUNEW	9	2.08	2.33	1.56	−32.91	1987.01	0.00226	0.0281
		[0.09]	[0.11]	[0.16]	[7.65]	[1985.05,1993.02]		
PU81	12	4.15	5.79	3.22	−44.37	1979.08	1.16E-006	0.00143
		[0.23]	[0.37]	[0.28]	[5.99]	[1979.03,1984.01]		
PUH	9	2.52	3.39	1.74	−48.59	1983.01	1.86E-009	0.00187
		[0.13]	[0.18]	[0.17]	[5.74]	[1982.09,1985.11]		
PU83	6	3.87	2.89	5.72	98.00	1986.01	1.25E-017	0.214
		[0.16]	[0.19]	[0.25]	[15.43]	[1984.03,1986.05]		
PU84	8	5.80	6.08	4.84	−20.42	1991.02	0.297	0.0576
		[0.24]	[0.27]	[0.51]	[9.16]	[1983.01,1999.12]		
PU85	6	2.16	2.82	1.14	−59.69	1984.03	8.49E-016	0.000250
		[0.10]	[0.12]	[0.15]	[5.72]	[1984.01,1985.12]		
PUC	9	3.22	2.75	3.45	25.64	1972.12	0.190	0.191
		[0.14]	[0.24]	[0.17]	[12.75]	[1960.02,1976.02]		
PUCD	12	2.77	3.23	1.97	−39.07	1985.06	7.96E-007	0.0338
		[0.11]	[0.14]	[0.18]	[6.11]	[1984.07,1988.09]		
PUS	9	2.31	3.00	1.34	−55.54	1983.04	1.66E-015	2.99E-007
		[0.10]	[0.13]	[0.15]	[5.35]	[1983.01,1985.01]		
PUXF	9	2.28	2.53	1.42	−43.76	1991.03	6.71E-006	0.000539
		[0.09]	[0.10]	[0.19]	[7.74]	[1990.08,1993.10]		
PUXHS	12	2.61	2.84	1.80	−36.63	1991.03	0.000455	0.328
		[0.10]	[0.11]	[0.21]	[7.93]	[1990.01,1994.10]		
PUXM	9	2.37	2.63	1.46	−44.58	1991.03	1.06E-005	0.0397
		[0.10]	[0.11]	[0.20]	[8.01]	[1990.08,1993.11]		
GMDC	9	1.62	1.30	1.77	36.35	1972.08	0.00886	0.334
		[0.06]	[0.11]	[0.08]	[13.05]	[1965.04,1974.10]		
GMDCD	12	2.71	3.02	2.30	−23.90	1982.08	0.0277	0.000213
		[0.11]	[0.15]	[0.17]	[6.87]	[1978.08,1993.05]		
GMDCN	9	3.11	2.39	3.44	43.85	1972.08	0.00656	0.456
		[0.14]	[0.24]	[0.16]	[16.03]	[1965.06,1974.04]		
GMDCS	9	1.41	0.94	1.64	73.85	1972.12	2.36E-007	0.890
		[0.06]	[0.10]	[0.07]	[19.49]	[1970.01,1973.06]		
Miscellaneous								
PMI	12	2718.35	3076.31	2139.36	−30.46	1984.09	0.000345	0.0233
		[106.18]	[132.46]	[168.46]	[6.24]	[1982.08,1989.10]		
PMP	12	3943.49	4401.29	3203.00	−27.23	1984.09	0.00466	0.0800
		[159.59]	[200.18]	[254.58]	[6.66]	[1982.06,1992.03]		
PMNO	4	4266.91	4710.43	3543.13	−24.78	1984.10	0.0184	0.0103
		[174.55]	[219.22]	[280.04]	[6.90]	[1980.11,1993.07]		
PMDEL	12	3541.77	4615.06	2166.93	−53.05	1982.06	1.42E-012	0.00564
		[168.69]	[212.57]	[240.59]	[5.64]	[1982.02,1984.09]		
PMNV	12	3494.09	3814.85	2685.10	−29.61	1988.08	0.00269	9.44E-005
		[134.26]	[156.26]	[248.15]	[7.12]	[1987.01,1994.03]		
PMEMP	12	2994.64	3353.91	2150.47	−35.88	1988.01	3.47E-005	0.000187
		[115.57]	[134.67]	[206.44]	[6.67]	[1986.10,1991.08]		
PMCP	12	4409.15	4672.66	3947.25	−15.52	1985.06	0.477	0.00745
		[190.05]	[237.33]	[314.22]	[7.98]	[1971.04,1999.12]		
HHSNTN	0	3913.82	2207.51	5327.07	141.32	1978.02	1.19E-020	0.663
		[174.23]	[236.43]	[215.17]	[27.62]	[1976.08,1978.04]		
F6EDM	12	68.80	99.50	59.17	−40.53	1973.05	1.87E-006	0.00866
		[3.26]	[6.45]	[3.61]	[5.29]	[1972.09,1977.09]		
FTMC6	12	110.04	117.73	82.73	−29.73	1990.10	0.0141	1.15E-005
		[4.36]	[4.87]	[9.18]	[8.32]	[1989.02,1995.07]		
FTMM6	5	67.68	79.94	46.57	−41.75	1987.02	1.37E-006	0.0207
		[3.02]	[3.67]	[4.81]	[6.59]	[1986.08,1990.05]		

Results for SupW tests for structural change in conditional volatility for individual series when using a nonlinear AR model with constant parameters for the conditional mean, and Wald tests for nonlinearity in the conditional mean. The column headed σ_0 contains the estimate of the conditional standard deviation under the null hypothesis of constant volatility. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated break date is given in the the column headed τ_v, with the 90% confidence interval for the break date given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional mean. Figures in brackets below parameter estimates are standard errors.

Table A.4: Tests for nonlinearity and structural change in conditional mean and tests for structural change in variance

Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$	τ_m	p-value$_m$
Production										
IP	3	7.48 [0.31]	8.74 [0.38]	5.56 [0.47]	−36.31 [6.10]	1984.03 [1983.01,1988.02]	7.08E-006	1.34E-021	1978.04 [1975.01,1984.10]	0.0575
IPP	3	7.73 [0.28]	8.27 [0.31]	5.39 [0.63]	−34.74 [8.05]	1992.06 [1991.05,1995.12]	0.00115	8.25E-021	1984.06 [1982.07,1987.07]	0.00231
IPF	3	8.27 [0.31]	8.77 [0.34]	6.19 [0.69]	−29.40 [8.33]	1992.04 [1990.05,1997.06]	0.0146	1.23E-020	1984.06 [1982.08,1987.04]	0.000627
IPC	0	10.10 [0.40]	11.44 [0.55]	8.67 [0.57]	−24.22 [6.22]	1980.09 [1977.05,1990.01]	0.0101	9.99E-011	1978.06 [1974.05,1987.09]	0.0109
IPCD	1	25.59 [1.16]	27.26 [1.52]	23.31 [1.78]	−14.48 [8.11]	1983.02 [1966.04,1999.12]	0.591	1.68E-012	1984.01 [1977.12,1992.03]	0.112
IPCN	2	8.16 [0.29]	8.56 [0.33]	6.69 [0.63]	−21.82 [7.89]	1991.06 [1986.12,1999.12]	0.103	9.87E-006	1978.06 [1976.05,1981.04]	3.00E-005
IPE	5	11.84 [0.46]	12.53 [0.51]	8.94 [1.05]	−28.66 [8.85]	1992.04 [1989.06,1998.02]	0.0333	8.97E-013	1988.12 [1983.12,1995.09]	0.761
IPI	3	9.62 [0.36]	10.43 [0.40]	6.08 [0.82]	−41.69 [8.18]	1992.06 [1991.09,1995.01]	5.89E-005	2.53E-014	1987.07 [1985.07,1991.02]	0.0275
IPM	12	9.42 [0.40]	10.93 [0.48]	6.55 [0.66]	−40.02 [6.55]	1986.03 [1985.05,1989.08]	2.59E-006	7.17E-016	1972.02 [1970.03,1973.11]	0.00546
IPMD	12	13.55 [0.57]	16.13 [0.71]	9.65 [0.87]	−40.16 [6.02]	1984.01 [1983.04,1987.06]	3.70E-007	4.38E-017	1971.11 [1970.01,1973.05]	0.00165
IPMND	10	11.17 [0.43]	12.45 [0.55]	9.12 [0.69]	−26.71 [6.39]	1984.07 [1981.11,1991.05]	0.00338	2.09E-015	1984.03 [1983.05,1986.06]	0.000298
IPMFG	3	8.20 [0.34]	9.58 [0.43]	6.12 [0.53]	−36.13 [6.24]	1984.01 [1983.01,1988.05]	1.43E-005	1.84E-022	1984.06 [1982.08,1990.02]	0.0549
IPD	3	10.89 [0.49]	12.63 [0.61]	8.26 [0.75]	−34.56 [6.76]	1984.01 [1982.01,1989.01]	0.000207	1.28E-021	1971.10 [1965.02,1976.05]	0.130
IPN	3	7.77 [0.30]	8.56 [0.34]	5.38 [0.59]	−37.12 [7.28]	1990.01 [1989.03,1993.07]	8.19E-005	2.50E-013	1983.09 [1982.03,1986.08]	0.000556
IPMIN	1	12.99 [0.55]	14.22 [0.67]	10.47 [0.96]	−26.40 [7.57]	1986.11 [1983.03,1995.03]	0.0225	0.0206	1966.05 [1963.10,1968.01]	0.0110
IPUT	10	16.95 [0.71]	11.02 [1.16]	20.01 [0.84]	81.63 [20.62]	1973.08 [1970.12,1974.02]	1.58E-008	0.350	1983.12 [1982.02,1984.12]	0.000430
IPX	3	586.27 [26.90]	709.43 [36.71]	459.85 [37.20]	−35.18 [6.22]	1984.03 [1983.01,1988.08]	5.75E-005	5.75E-017	1984.01 [1981.12,1990.12]	0.151
IPXMCA	3	667.75 [27.87]	777.78 [35.05]	501.85 [43.04]	−35.48 [6.25]	1984.01 [1982.10,1988.06]	2.27E-005	8.14E-019	1966.01 [1963.09,1968.06]	0.0279
IPXDCA	3	820.03 [40.15]	984.94 [55.43]	654.27 [55.58]	−33.57 [6.77]	1984.01 [1982.03,1989.03]	0.000668	4.12E-016	1984.01 [1982.01,1988.11]	0.0365
IPXNCA	3	655.36 [27.21]	750.67 [31.59]	443.94 [47.05]	−40.86 [6.74]	1990.01 [1989.05,1992.07]	2.39E-006	8.46E-011	1987.07 [1985.05,1994.07]	0.270
IPXMIN	1	1185.56 [56.75]	1376.48 [72.29]	910.72 [86.73]	−33.84 [7.20]	1986.11 [1985.04,1991.12]	0.000949	0.0194	1989.09 [1983.03,1999.12]	0.711
IPXUT	6	1609.93 [73.90]	1316.13 [106.44]	1865.03 [99.19]	41.70 [13.72]	1982.11 [1976.10,1985.04]	0.00360	0.0550	1983.10 [1980.05,1987.03]	0.345
GMPYQ	9	4.10 [0.18]	4.55 [0.29]	3.81 [0.23]	−16.31 [7.40]	1975.07 [1966.03,1999.12]	0.379	9.66E-009	1984.09 [1982.11,1987.08]	0.0787
GMYXPQ	9	3.84 [0.15]	3.38 [0.29]	4.01 [0.17]	18.71 [11.37]	1970.06 [1960.02,1983.08]	0.452	2.56E-015	1984.09 [1982.09,1987.01]	0.00992
(Un)employment										
LHEL	12	1979.96 [75.18]	1838.31 [80.46]	2719.45 [183.84]	47.93 [11.91]	1993.07 [1989.11,1995.04]	0.000319	5.44E-012	1984.06 [1983.03,1985.08]	0.000103
LHELX	4	43.85 [1.84]	52.99 [2.50]	34.27 [2.56]	−35.33 [5.72]	1980.06 [1979.04,1985.01]	6.40E-006	1.26E-013	1968.08 [1966.09,1970.04]	1.44E-005
LHEM	8	3.06 [0.12]	3.49 [0.15]	2.35 [0.19]	−32.66 [6.29]	1984.08 [1982.07,1989.02]	0.000120	1.25E-009	1965.12 [1964.05,1967.10]	0.00516
LHNAG	8	2.91 [0.11]	3.22 [0.14]	2.36 [0.19]	−26.75 [6.57]	1985.09 [1982.08,1992.03]	0.00432	1.77E-009	1967.01 [1964.05,1969.11]	0.216
LHUR	12	170.19 [6.68]	183.14 [8.19]	145.54 [11.29]	−20.53 [7.12]	1986.03 [1980.07,1998.03]	0.0917	2.75E-018	1983.06 [1979.11,1986.05]	0.650
LHU680	7	515.40 [19.71]	726.90 [49.39]	477.37 [20.94]	−34.33 [5.31]	1966.02 [1964.07,1969.04]	0.000102	0.00813	1969.04 [1965.05,1976.11]	0.893
LHU5	12	45.72 [1.87]	58.66 [3.63]	41.25 [2.13]	−29.69 [5.67]	1970.04 [1967.08,1975.08]	0.000914	3.07E-010	1973.10 [1970.10,1977.04]	0.381
LHU14	5	55.07 [2.07]	64.78 [3.27]	48.90 [2.60]	−24.52 [5.54]	1975.07 [1972.04,1983.04]	0.00324	2.02E-016	1966.04 [1963.04,1969.09]	0.349
LHU15	4	55.79 [2.09]	71.68 [3.90]	49.80 [2.39]	−30.52 [5.04]	1970.12 [1968.09,1974.11]	5.47E-005	1.42E-009	1966.05 [1963.03,1969.02]	0.0569
LHU26	4	85.52 [3.12]	107.95 [5.84]	77.07 [3.59]	−28.60 [5.10]	1970.12 [1968.08,1975.07]	0.000196	8.76E-010	1992.08 [1990.08,1994.04]	0.0117
LHU27	7	74.74 [2.93]	93.46 [3.92]	55.46 [3.98]	−40.66 [4.94]	1980.04 [1979.06,1982.11]	5.52E-010	2.20E-006	1969.04 [1966.11,1973.11]	0.273
LHCH	12	200.43 [8.90]	186.99 [9.54]	274.03 [22.32]	46.55 [14.09]	1989.09 [1984.12,1991.11]	0.00692	0.0102	1975.06 [1974.09,1976.10]	2.11E-005

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$	τ_m	p-value$_m$
LPNAG	4	1.69	2.16	1.00	−53.75	1983.07	4.58E-016	1.95E-022	1980.10	0.00107
		[0.07]	[0.09]	[0.10]	[5.13]	[1983.02,1985.02]			[1980.01,1985.05]	
LP	3	1.98	2.63	1.28	−51.42	1980.08	5.93E-016	3.70E-023	1972.09	5.07E-005
		[0.08]	[0.11]	[0.11]	[4.75]	[1980.03,1982.06]			[1971.05,1975.10]	
LPGD	3	3.51	4.49	2.03	−54.85	1984.02	1.08E-012	1.53E-023	1983.06	1.68E-005
		[0.17]	[0.20]	[0.25]	[5.92]	[1983.11,1986.03]			[1983.01,1986.05]	
LPMI	12	8.02	8.83	5.67	−35.81	1989.09	0.0104	8.93E-006	1980.11	0.000818
		[0.40]	[0.46]	[0.79]	[9.53]	[1988.05,1996.04]			[1980.01,1983.02]	
LPCC	5	9.85	12.57	5.67	−54.93	1984.03	1.30E-010	1.17E-007	1968.02	4.55E-008
		[0.51]	[0.62]	[0.77]	[6.49]	[1983.11,1986.09]			[1967.05,1969.10]	
LPEM	3	3.18	4.14	1.76	−57.56	1983.10	9.40E-012	6.02E-022	1983.05	1.80E-006
		[0.17]	[0.21]	[0.25]	[6.38]	[1983.06,1986.01]			[1982.12,1985.12]	
LPED	5	4.56	5.80	2.74	−52.86	1983.10	1.18E-008	2.68E-021	1971.01	5.23E-005
		[0.25]	[0.31]	[0.37]	[6.91]	[1983.04,1986.10]			[1970.02,1973.11]	
LPEN	2	2.49	3.22	1.51	−53.18	1982.12	3.48E-013	3.49E-017	1984.04	7.72E-006
		[0.12]	[0.14]	[0.17]	[5.56]	[1982.08,1985.01]			[1983.11,1989.02]	
LPSP	6	1.38	1.66	1.05	−36.67	1981.10	7.32E-007	1.27E-012	1973.01	0.300
		[0.06]	[0.07]	[0.08]	[5.56]	[1980.07,1985.04]			[1969.09,1978.08]	
LPTU	12	4.25	5.76	3.62	−37.08	1971.10	0.000677	2.13E-007	1971.11	0.132
		[0.24]	[0.43]	[0.28]	[6.67]	[1969.01,1977.04]			[1969.04,1974.05]	
LPT	12	2.20	2.59	1.53	−40.83	1985.03	1.36E-007	3.21E-010	1973.01	2.78E-005
		[0.09]	[0.11]	[0.14]	[6.01]	[1984.06,1988.03]			[1971.12,1974.04]	
LPFR	10	1.31	1.49	1.10	−25.72	1981.06	0.00152	0.0512	1980.10	0.000122
		[0.05]	[0.07]	[0.07]	[5.72]	[1978.04,1987.10]			[1979.12,1983.03]	
LPS	10	1.81	2.13	1.48	−30.73	1980.03	9.23E-005	0.000348	1973.04	0.635
		[0.07]	[0.10]	[0.10]	[5.67]	[1978.07,1985.09]			[1968.09,1977.05]	
LPGOV	12	2.40	2.74	1.14	−58.58	1991.06	2.16E-007	0.00304	1966.07	0.00165
		[0.12]	[0.13]	[0.24]	[9.09]	[1991.04,1993.07]			[1965.10,1967.09]	
LW	4	114.88	137.36	87.27	−36.47	1984.04	4.26E-005	7.90E-008	1986.07	0.394
		[5.29]	[6.93]	[7.69]	[6.45]	[1982.08,1988.04]			[1983.05,1992.09]	
LPHRM	12	227.09	268.77	163.13	−39.30	1984.03	1.88E-005	5.19E-007	1969.03	0.967
		[10.57]	[13.25]	[16.41]	[6.80]	[1983.03,1988.08]			[1965.04,1973.02]	
LPMOSA	12	129.77	147.63	103.75	−29.72	1983.09	0.00271	6.11E-007	1979.02	0.654
		[5.68]	[7.27]	[8.77]	[6.88]	[1980.05,1990.01]			[1975.10,1983.04]	
Wages and salaries										
LEH	12	2.28	2.79	1.20	−57.15	1988.10	3.58E-012	0.133	1972.09	0.0331
		[0.11]	[0.12]	[0.18]	[6.55]	[1988.07,1990.05]			[1971.08,1974.09]	
LEHCC	11	5.45	6.07	3.96	−34.78	1988.04	0.00104	0.563	1966.02	0.00510
		[0.24]	[0.28]	[0.43]	[7.73]	[1986.05,1993.02]			[1965.07,1967.10]	
LEHM	11	3.19	3.81	2.41	−36.85	1982.03	3.60E-005	0.285	1972.02	0.158
		[0.15]	[0.19]	[0.21]	[6.47]	[1980.10,1987.01]			[1969.08,1974.11]	
LEHTU	11	4.12	5.20	2.86	−45.01	1983.10	1.25E-008	0.457	1983.03	0.343
		[0.19]	[0.25]	[0.27]	[5.86]	[1983.04,1986.08]			[1982.03,1983.11]	
LEHTT	9	2.62	3.04	1.97	−35.29	1986.05	6.16E-005	0.0744	1977.09	0.0135
		[0.11]	[0.14]	[0.18]	[6.52]	[1985.05,1990.08]			[1977.01,1980.06]	
LEHFR	12	4.44	5.21	2.81	−46.18	1988.10	4.10E-009	0.0303	1971.03	0.581
		[0.18]	[0.21]	[0.31]	[6.25]	[1988.03,1990.09]			[1969.05,1972.12]	
LEHS	12	3.03	3.73	1.48	−60.38	1989.02	2.48E-016	0.0889	1976.02	0.0337
		[0.13]	[0.14]	[0.22]	[5.97]	[1988.12,1990.04]			[1975.06,1978.09]	
Construction										
HSFR	12	81.05	86.28	58.44	−32.27	1992.06	0.0119	0.000532	1966.01	0.0862
		[3.22]	[3.53]	[7.33]	[8.94]	[1990.05,1997.03]			[1964.08,1967.03]	
HSNE	4	184.66	200.53	160.31	−20.06	1984.03	0.0969	0.693	1966.02	0.966
		[7.41]	[9.45]	[11.71]	[6.95]	[1979.01,1998.04]			[1960.02,1974.02]	
HSMW	3	161.71	174.03	118.35	−32.00	1991.02	0.0110	0.782	1979.04	0.234
		[6.79]	[7.60]	[14.26]	[8.71]	[1989.06,1996.10]			[1971.10,1985.02]	
HSSOU	12	97.49	103.30	77.26	−25.22	1991.01	0.0647	0.0110	1983.07	0.871
		[3.86]	[4.34]	[8.09]	[8.44]	[1987.06,1998.12]			[1979.12,1987.12]	
HSWST	2	130.94	141.57	113.12	−20.10	1985.01	0.0507	0.00667	1993.04	0.280
		[4.74]	[5.94]	[7.69]	[6.38]	[1979.06,1995.06]			[1990.05,1998.09]	
HSBR	2	67.98	75.02	42.28	−43.64	1991.05	5.45E-005	0.0384	1978.07	0.0582
		[2.88]	[3.17]	[6.06]	[8.42]	[1990.11,1994.06]			[1972.02,1983.07]	
HSBNE	4	121.91	137.19	97.32	−29.06	1985.01	0.00398	0.116	1994.01	0.720
		[5.25]	[6.59]	[8.36]	[6.98]	[1982.04,1991.10]			[1992.01,1999.12]	
HSBMW	12	106.77	119.48	65.51	−45.17	1990.10	3.15E-005	0.00946	1984.02	0.451
		[4.79]	[5.34]	[9.62]	[8.42]	[1989.12,1993.09]			[1981.06,1986.08]	
HSBSOU	12	76.30	80.14	55.21	−31.11	1993.12	0.0548	1.63E-006	1988.01	0.241
		[3.13]	[3.38]	[7.91]	[10.29]	[1992.10,1999.09]			[1985.09,1989.09]	
HSBWST	1	99.71	108.60	81.64	−24.83	1987.02	0.0401	0.0195	1985.09	0.708
		[4.25]	[5.14]	[7.32]	[7.62]	[1984.04,1997.02]			[1973.08,1999.12]	
HNS	2	83.59	86.69	66.49	−23.30	1994.06	0.243	0.467	1984.08	0.395
		[3.26]	[3.52]	[8.27]	[10.04]	[1991.12,1999.12]			[1977.07,1994.09]	
HNSNE	12	177.42	185.66	132.27	−28.76	1995.12	0.176	0.171	1995.07	0.0483
		[8.09]	[8.72]	[20.41]	[11.49]	[1994.04,1999.12]			[1995.01,1996.06]	
HNSMW	11	127.47	108.19	131.34	21.40	1978.05	0.770	0.00386	1983.06	0.130
		[6.03]	[14.71]	[6.59]	[17.60]	[1974.02,1988.06]			[1981.07,1984.12]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$	τ_m	p-value$_m$
HNSSOU	12	100.52	109.28	67.98	−37.79	1994.06	0.00459	0.0123	1978.05	0.484
		[4.66]	[5.14]	[9.89]	[9.51]	[1992.12,1997.04]			[1977.06,1979.07]	
HNSWST	12	123.64	132.03	80.87	−38.75	1995.09	0.0360	0.0884	1992.01	0.777
		[6.30]	[6.79]	[15.32]	[12.02]	[1994.08,1999.04]			[1990.05,1994.04]	
HNR	4	576.12	621.71	410.44	−33.98	1992.03	0.00673	0.00236	1976.02	0.610
		[24.54]	[27.31]	[52.06]	[8.86]	[1990.08,1996.09]			[1969.07,1981.04]	
HMOB	3	52.00	63.94	35.76	−44.07	1983.01	3.07E-009	0.000301	1980.08	0.472
		[2.22]	[2.81]	[3.27]	[5.67]	[1982.06,1985.11]			[1977.01,1991.01]	
CONTC	1	17.72	21.15	13.57	−35.83	1984.02	7.95E-006	6.21E-007	1986.02	0.944
		[0.75]	[0.98]	[1.08]	[5.92]	[1982.09,1987.09]			[1971.07,1999.12]	
CONPC	6	17.34	22.49	14.56	−35.26	1977.04	9.77E-006	1.97E-005	1971.05	0.166
		[0.76]	[1.24]	[0.91]	[5.41]	[1975.12,1981.05]			[1968.05,1974.09]	
CONQC	2	35.34	40.68	29.20	−28.22	1983.09	0.00209	0.258	1978.02	0.575
		[1.49]	[2.00]	[2.14]	[6.33]	[1980.11,1989.07]			[1968.08,1987.12]	
CONDO9	9	88.79	67.85	92.73	36.67	1966.05	0.131	4.81E-006	1985.06	0.512
		[3.60]	[8.98]	[3.90]	[18.97]	[1960.02,1968.08]			[1981.07,1989.09]	
Trade										
MSMTQ	12	10.19	11.12	7.13	−35.89	1990.09	0.000153	3.63E-017	1984.10	0.0586
		[0.38]	[0.42]	[0.77]	[7.31]	[1989.07,1994.01]			[1983.01,1986.08]	
MSMQ	12	14.04	15.23	12.25	−19.56	1983.12	0.0610	4.31E-016	1979.01	0.0872
		[0.52]	[0.66]	[0.81]	[6.34]	[1978.06,1995.09]			[1976.08,1981.06]	
MSDQ	12	20.39	21.63	15.44	−28.64	1991.12	0.0160	8.02E-017	1966.03	0.511
		[0.75]	[0.83]	[1.67]	[8.17]	[1990.03,1997.06]			[1964.08,1968.03]	
MSNQ	3	11.97	13.53	10.18	−24.76	1981.05	0.00618	1.09E-006	1984.04	0.000726
		[0.47]	[0.63]	[0.68]	[6.11]	[1978.01,1989.08]			[1982.07,1987.11]	
WTQ	3	15.29	17.12	11.43	−33.23	1987.02	0.000148	2.99E-007	1972.06	0.0151
		[0.59]	[0.71]	[1.03]	[6.59]	[1985.09,1991.06]			[1968.05,1975.08]	
WTDQ	5	16.91	17.91	11.97	−33.15	1993.03	0.00795	5.85E-011	1984.06	0.130
		[0.64]	[0.69]	[1.53]	[8.91]	[1991.09,1997.05]			[1980.11,1988.06]	
WTNQ	4	20.97	23.42	15.80	−32.55	1987.02	0.000173	0.0941	1966.07	0.0915
		[0.80]	[0.95]	[1.39]	[6.52]	[1985.08,1991.06]			[1964.03,1968.10]	
RTQ	11	12.32	13.89	8.64	−37.76	1988.01	2.97E-005	1.30E-007	1986.12	0.0345
		[0.50]	[0.58]	[0.89]	[6.94]	[1987.01,1991.09]			[1985.08,1989.05]	
RTDQ	2	28.85	32.19	18.17	−43.56	1990.06	2.07E-005	4.71E-009	1986.09	0.00205
		[1.23]	[1.37]	[2.45]	[7.99]	[1989.12,1993.07]			[1984.09,1990.09]	
RTNQ	12	8.41	10.20	6.69	−34.34	1979.07	8.42E-007	0.0214	1975.05	0.0856
		[0.32]	[0.45]	[0.44]	[5.16]	[1978.05,1983.06]			[1973.11,1978.12]	
Inventories										
IVMTQ	3	3.86	4.14	2.86	−30.90	1991.05	0.00203	4.98E-005	1971.03	0.349
		[0.14]	[0.15]	[0.29]	[7.41]	[1989.09,1995.06]			[1967.06,1979.04]	
IVMFGQ	12	3.87	4.11	3.47	−15.54	1985.02	0.250	0.000969	1972.09	9.11E-005
		[0.14]	[0.17]	[0.23]	[6.59]	[1973.12,1999.12]			[1971.02,1973.12]	
IVMFDQ	12	4.92	5.69	4.59	−19.25	1972.02	0.0995	0.000534	1967.12	0.00690
		[0.19]	[0.34]	[0.23]	[6.30]	[1965.05,1985.12]			[1966.07,1969.07]	
IVMFNQ	2	5.21	5.68	4.23	−25.67	1986.12	0.00756	0.363	1985.01	0.00913
		[0.19]	[0.23]	[0.34]	[6.67]	[1984.02,1993.11]			[1982.02,1988.09]	
IVWRQ	12	7.83	9.00	5.89	−34.59	1984.12	2.82E-006	0.0339	1979.05	0.0850
		[0.29]	[0.35]	[0.46]	[5.70]	[1983.07,1988.04]			[1976.12,1981.07]	
IVRRQ	12	8.10	8.79	6.48	−26.35	1988.01	0.00872	0.000358	1965.12	0.0596
		[0.31]	[0.36]	[0.55]	[6.96]	[1984.04,1994.02]			[1964.01,1967.09]	
IVSRQ	12	15.36	16.40	10.23	−37.64	1993.03	0.00138	2.02E-006	1968.08	0.231
		[0.58]	[0.63]	[1.40]	[8.84]	[1992.02,1996.06]			[1966.12,1969.12]	
IVSRMQ	12	23.35	24.79	16.48	−33.54	1993.01	0.00380	5.00E-008	1971.01	0.0724
		[0.85]	[0.92]	[2.01]	[8.48]	[1992.03,1996.12]			[1969.05,1973.01]	
IVSRWQ	2	19.91	16.88	21.20	25.60	1971.12	0.0900	4.08E-006	1972.05	0.402
		[0.74]	[1.34]	[0.87]	[11.22]	[1961.04,1977.05]			[1963.05,1978.03]	
IVSRRQ	5	19.59	20.78	13.66	−34.24	1993.04	0.0215	0.000809	1987.02	0.0317
		[0.83]	[0.90]	[2.01]	[10.08]	[1991.12,1998.05]			[1985.03,1991.03]	
Orders										
MOCMQ	12	26.00	27.67	19.16	−30.77	1992.02	0.00547	1.45E-011	1971.11	0.677
		[0.94]	[1.03]	[2.09]	[7.98]	[1990.10,1996.08]			[1968.05,1975.04]	
MDOQ	6	34.68	36.64	26.84	−26.76	1991.12	0.0179	9.96E-012	1984.03	0.193
		[1.21]	[1.33]	[2.66]	[7.74]	[1989.08,1997.05]			[1980.05,1988.03]	
MSONDQ	9	72.56	53.55	77.26	44.29	1967.12	0.00521	7.22E-005	1968.06	0.0342
		[2.61]	[5.79]	[2.88]	[16.50]	[1963.07,1969.09]			[1967.02,1969.12]	
MO	6	20.92	21.74	16.64	−23.46	1993.07	0.119	1.44E-007	1984.03	0.0134
		[0.73]	[0.79]	[1.81]	[8.76]	[1990.05,1999.12]			[1981.08,1986.09]	
MOWU	6	30.03	31.26	24.01	−23.20	1993.03	0.119	3.09E-007	1984.03	0.0109
		[1.06]	[1.15]	[2.56]	[8.65]	[1989.10,1999.12]			[1981.06,1986.05]	
MDO	6	34.56	36.47	26.91	−26.22	1991.12	0.0214	8.95E-009	1984.03	0.0116
		[1.20]	[1.32]	[2.65]	[7.73]	[1989.08,1997.08]			[1981.07,1986.08]	
MDUWU	6	36.41	38.12	29.63	−22.28	1991.12	0.104	7.06E-007	1984.03	0.0127
		[1.30]	[1.44]	[2.87]	[8.09]	[1988.05,1999.12]			[1981.04,1986.05]	
MNO	12	12.58	13.45	8.64	−35.80	1992.09	0.00466	0.00821	1983.05	0.0908
		[0.51]	[0.55]	[1.18]	[9.14]	[1991.04,1996.10]			[1981.02,1985.08]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$	τ_m	p-value$_m$
MNOU	6	19.98	21.84	17.96	−17.74	1980.10	0.0798	0.146	1987.07	0.0802
		[0.71]	[0.98]	[1.01]	[5.92]	[1974.08,1994.10]			[1985.06,1991.07]	
MU	3	7.72	8.98	7.32	−18.41	1969.07	0.138	0.0677	1984.03	0.00772
		[0.28]	[0.57]	[0.32]	[6.31]	[1962.07,1982.10]			[1980.06,1985.12]	
MDU	3	8.03	9.39	7.62	−18.91	1969.06	0.119	0.0844	1984.03	0.00753
		[0.29]	[0.60]	[0.33]	[6.28]	[1963.05,1983.03]			[1980.06,1985.12]	
MNU	12	17.07	18.32	15.74	−14.06	1980.09	0.298	0.00924	1976.08	0.0524
		[0.61]	[0.84]	[0.87]	[6.16]	[1967.06,1999.12]			[1974.06,1978.10]	
MPCON	5	73.86	51.67	79.35	53.57	1967.12	0.000388	0.000119	1968.06	0.126
		[2.59]	[5.70]	[2.84]	[17.82]	[1964.09,1969.02]			[1966.04,1970.07]	
MPCONQ	9	71.53	51.67	75.39	45.89	1966.07	0.00755	8.79E-006	1969.02	0.126
		[2.49]	[6.10]	[2.69]	[17.98]	[1962.06,1967.11]			[1967.05,1971.04]	
Consumption										
GMCQ	8	5.97	6.49	3.88	−40.26	1992.01	7.26E-005	6.39E-009	1965.12	0.00149
		[0.23]	[0.25]	[0.50]	[7.96]	[1991.01,1994.09]			[1964.04,1966.11]	
GMCDQ	8	28.34	30.07	21.51	−28.46	1991.11	0.0374	2.71E-009	1985.09	7.96E-005
		[1.14]	[1.27]	[2.51]	[8.89]	[1990.09,1998.11]			[1984.01,1987.04]	
GMCNQ	12	6.99	8.28	5.74	−30.64	1979.08	0.000127	0.00233	1981.01	0.512
		[0.28]	[0.39]	[0.39]	[5.71]	[1977.08,1985.01]			[1978.08,1984.09]	
GMCSQ	10	3.52	2.01	3.90	94.54	1968.01	2.62E-007	0.00559	1979.02	2.72E-006
		[0.14]	[0.29]	[0.15]	[29.22]	[1965.12,1968.03]			[1977.11,1980.01]	
GMCANQ	5	73.17	79.35	50.62	−36.21	1991.05	0.00819	4.97E-006	1985.09	1.12E-011
		[3.38]	[3.77]	[7.20]	[9.57]	[1990.07,1996.11]			[1984.07,1986.08]	
Money and credit										
FM1	9	4.35	3.33	5.29	59.05	1979.03	2.93E-007	0.0676	1967.06	0.508
		[0.18]	[0.24]	[0.23]	[13.66]	[1975.09,1980.05]			[1966.05,1968.07]	
FM2	12	2.28	1.42	2.44	72.40	1966.04	0.00286	0.501	1975.06	0.0751
		[0.10]	[0.25]	[0.11]	[30.80]	[1962.09,1966.10]			[1973.12,1977.07]	
FM3	8	2.46	1.72	2.68	55.29	1968.12	0.000533	0.0368	1969.11	0.0124
		[0.09]	[0.20]	[0.11]	[18.76]	[1965.04,1970.06]			[1968.07,1971.03]	
FML	12	3.28	2.88	3.66	26.82	1978.10	0.0122	0.437	1992.07	0.913
		[0.11]	[0.16]	[0.16]	[9.01]	[1970.08,1983.06]			[1989.11,1996.02]	
FM2DQ	10	2.92	2.21	3.16	43.28	1970.01	0.00674	0.406	1975.06	0.324
		[0.12]	[0.23]	[0.13]	[16.11]	[1964.03,1971.10]			[1973.06,1979.01]	
FMFBA	11	2.54	2.74	2.41	−12.04	1975.11	0.598	0.0977	1981.03	0.665
		[0.10]	[0.15]	[0.12]	[6.70]	[1960.02,1999.12]			[1977.12,1986.04]	
FMBASE	12	3.95	3.58	4.31	20.38	1979.09	0.157	0.812	1981.04	0.172
		[0.15]	[0.21]	[0.21]	[9.17]	[1962.09,1988.02]			[1978.03,1983.12]	
FMRRA	11	9.95	8.85	10.84	22.53	1977.12	0.0704	0.00547	1983.02	5.11E-005
		[0.36]	[0.53]	[0.48]	[9.08]	[1965.10,1984.11]			[1982.04,1984.08]	
FMRNBA	1	17.22	9.99	19.04	90.55	1968.01	0.000554	0.452	1984.03	3.16E-005
		[0.87]	[1.90]	[0.95]	[37.46]	[1964.04,1968.04]			[1982.06,1988.01]	
FMRNBC	1	15.06	16.65	10.05	−39.67	1988.01	0.00118	0.152	1985.12	5.85E-005
		[0.71]	[0.80]	[1.41]	[8.97]	[1987.04,1992.04]			[1985.01,1988.08]	
FCLS	2	3.80	3.53	4.96	40.38	1995.02	0.0398	0.614	1987.01	0.0550
		[0.19]	[0.20]	[0.43]	[14.54]	[1987.02,1996.12]			[1983.08,1989.11]	
FCSGV	3	9.69	11.30	8.03	−28.96	1987.03	0.0112	0.546	1995.04	0.0574
		[0.48]	[0.67]	[0.68]	[7.32]	[1984.08,1993.02]			[1993.09,1996.04]	
FCLRE	3	2.81	2.46	4.67	90.01	1995.11	3.00E-006	0.0189	1993.04	0.351
		[0.16]	[0.16]	[0.38]	[19.91]	[1992.11,1996.04]			[1985.02,1994.01]	
FCLIN	3	3.92	3.56	5.92	66.23	1996.01	0.000333	0.0156	1995.08	0.0403
		[0.20]	[0.21]	[0.50]	[17.01]	[1993.04,1997.01]			[1992.02,1996.01]	
FCLNBF	1	18.69	14.90	23.98	60.89	1985.09	0.000293	0.501	1977.07	0.210
		[1.05]	[1.33]	[1.57]	[17.80]	[1982.11,1987.01]			[1974.02,1978.09]	
FCLNQ	7	8.69	5.61	9.58	70.68	1968.12	1.10E-005	0.0174	1989.02	0.736
		[0.33]	[0.68]	[0.37]	[21.78]	[1966.03,1969.08]			[1985.01,1994.10]	
FCLBMC	8	29494.75	10855.62	47596.95	338.45	1979.09	6.40E-039	0.242	1991.10	0.0514
		[1610.39]	[1958.05]	[1929.64]	[81.06]	[1978.09,1979.10]			[1989.01,1993.02]	
CCI30M	12	81.67	48.34	105.40	118.02	1974.11	4.26E-012	0.00754	1976.10	0.503
		[4.00]	[5.83]	[4.92]	[28.19]	[1972.10,1975.02]			[1975.04,1978.03]	
CCINT	8	2369383.74	1207112.59	2988255.39	147.55	1982.11	1.08E-007		1980.06	1.00
		[152531.68]	[241222.97]	[176021.30]	[51.57]	[1981.04,1983.02]			[1978.08,1981.05]	
CCINV	7	1139774.04	674886.54	1538771.96	128.00	1985.02	6.03E-010	0.0140	1986.01	0.955
		[69401.52]	[93417.37]	[86544.41]	[34.07]	[1983.08,1985.05]			[1982.11,1988.03]	
Stock prices										
FSNCOM	2	37.19	39.59	28.72	−27.46	1991.02	0.0418	0.448	1988.05	0.906
		[1.52]	[1.71]	[3.20]	[8.66]	[1987.11,1998.02]			[1978.05,1999.12]	
FSNIN	2	39.48	43.62	28.16	−35.44	1991.02	0.00263	0.330	1988.05	0.911
		[1.81]	[2.08]	[3.43]	[8.44]	[1989.06,1995.05]			[1980.05,1999.12]	
FSNTR	2	55.42	60.06	42.75	−28.82	1991.02	0.0131	0.351	1973.06	0.846
		[2.30]	[2.64]	[4.37]	[7.92]	[1988.08,1996.05]			[1967.02,1982.06]	
FSNUT	5	34.11	41.13	31.47	−23.50	1976.01	0.0322	0.988	1972.02	0.218
		[1.41]	[2.66]	[1.63]	[6.35]	[1972.11,1986.01]			[1970.03,1974.05]	
FSNFI	2	51.04	61.03	47.83	−21.62	1975.01	0.112	0.199	1990.02	0.952
		[2.19]	[4.40]	[2.49]	[6.97]	[1969.02,1984.04]			[1977.05,1999.12]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$	τ_m	p-value$_m$
FSPCOM	2	36.78	38.59	30.39	−21.25	1991.02	0.215	0.497	1988.05	0.550
		[1.48]	[1.67]	[3.13]	[8.81]	[1985.04,1999.12]			[1981.07,1997.11]	
FSPIN	2	37.36	39.49	29.89	−24.30	1991.02	0.105	0.510	1988.05	0.526
		[1.52]	[1.71]	[3.21]	[8.77]	[1986.11,1999.12]			[1982.01,1997.06]	
FSPCAP	1	44.18	37.49	46.49	24.02	1970.04	0.258	0.264	1987.11	0.326
		[1.79]	[3.51]	[2.06]	[12.84]	[1960.02,1978.09]			[1980.02,1998.07]	
FSPTR	2	54.17	58.80	43.51	−26.00	1991.03	0.0434	0.919	1989.12	0.705
		[2.38]	[2.82]	[4.28]	[8.09]	[1987.12,1997.08]			[1983.08,1999.06]	
FSPUT	5	35.84	28.28	37.72	33.38	1967.12	0.0759	0.984	1975.12	0.349
		[1.37]	[3.05]	[1.52]	[15.34]	[1960.08,1971.12]			[1971.09,1982.11]	
FSPFI	2	55.66	58.11	49.94	−14.06	1991.04	0.673	0.155	1994.12	0.709
		[2.39]	[2.85]	[4.36]	[8.60]	[1976.07,1999.12]			[1988.08,1999.12]	
Dividends and volume										
FSDXP	1	39.29	33.03	41.33	25.13	1969.11	0.271	0.493	1988.05	0.0118
		[1.64]	[3.30]	[1.88]	[13.73]	[1960.02,1975.12]			[1984.03,1992.08]	
FSPXE	4	44.04	37.45	46.20	23.34	1969.11	0.286	0.747	1966.12	0.885
		[1.75]	[3.52]	[2.01]	[12.77]	[1960.02,1975.10]			[1964.06,1968.06]	
FSNVV3	12	31.87	49.13	23.67	−51.81	1982.04	2.76E-011	0.431	1981.04	0.00276
		[1.80]	[2.90]	[2.00]	[4.97]	[1981.12,1984.01]			[1980.12,1982.03]	
Interest rates										
FYFF	12	409.31	491.29	202.55	−58.77	1988.08	5.24E-006	2.31E-014	1980.10	1.31E-007
		[25.44]	[29.24]	[46.43]	[9.76]	[1988.06,1992.01]			[1980.05,1982.08]	
FYCP	12	424.86	245.92	523.24	112.77	1973.05	8.45E-008	1.27E-010	1981.01	0.000106
		[22.96]	[37.09]	[27.51]	[33.99]	[1970.04,1973.07]			[1979.12,1982.08]	
FYGM3	12	364.18	433.12	242.24	−44.07	1985.07	3.04E-005	2.52E-013	1981.03	1.11E-008
		[19.14]	[23.36]	[31.07]	[7.78]	[1985.03,1990.04]			[1980.06,1982.05]	
FYGM6	12	362.84	417.36	225.36	−46.00	1988.08	2.37E-005	2.23E-012	1981.03	3.44E-006
		[17.89]	[20.62]	[32.75]	[8.29]	[1988.04,1992.05]			[1980.04,1982.09]	
FYGT1	12	394.09	226.92	445.10	96.15	1969.05	1.45E-006	1.51E-013	1981.03	0.000768
		[17.30]	[34.69]	[19.16]	[31.15]	[1966.11,1969.11]			[1979.10,1983.02]	
FYGT5	6	320.50	156.03	371.28	137.96	1969.06	5.94E-010	6.83E-007	1983.04	0.0548
		[14.10]	[27.73]	[15.41]	[43.42]	[1967.09,1969.08]			[1980.08,1987.07]	
FYGT10	12	267.00	129.38	309.00	138.83	1969.05	1.16E-010	1.38E-007	1983.03	0.000105
		[11.37]	[22.38]	[12.37]	[42.41]	[1967.09,1969.08]			[1982.01,1985.01]	
FYAAAC	12	192.05	121.63	258.20	112.28	1979.05	1.85E-014	2.93E-011	1983.03	5.50E-006
		[8.91]	[12.00]	[11.63]	[23.02]	[1977.05,1979.10]			[1982.02,1984.09]	
FYBAAC	4	185.81	107.69	261.04	142.41	1979.08	1.53E-019	0.00157	1985.03	0.0493
		[8.80]	[11.53]	[11.31]	[28.00]	[1977.12,1979.10]			[1981.12,1990.02]	
FWAFIT	3	299.04	426.69	201.91	−52.68	1982.10	6.86E-009	0.0150	1984.07	0.740
		[18.77]	[26.41]	[23.04]	[6.14]	[1982.04,1984.07]			[1982.07,1993.01]	
FYFHA	4	268.61	131.08	401.08	205.99	1979.08	2.07E-022	2.97E-010	1983.07	0.00427
		[14.64]	[18.96]	[18.61]	[46.49]	[1978.01,1979.09]			[1981.03,1986.06]	
Exchange rates										
EXRUS	2	18.97	12.19	20.43	67.66	1979.06	0.0106	0.839	1986.07	0.728
		[0.93]	[2.16]	[1.00]	[30.89]	[1976.07,1980.05]			[1979.02,1996.08]	
EXRGER	1	29.86	21.15	31.44	48.61	1978.09	0.0826	0.591	1985.02	0.866
		[1.37]	[3.45]	[1.47]	[25.25]	[1975.02,1980.02]			[1975.02,1998.12]	
EXRSW	1	33.58	23.51	36.11	53.56	1980.01	0.0173	0.815	1978.09	0.419
		[1.55]	[3.41]	[1.71]	[23.42]	[1976.11,1982.05]			[1975.02,1980.05]	
EXRJAN	3	30.93	21.16	32.62	54.16	1978.09	0.0657	0.813	1988.05	0.987
		[1.45]	[3.74]	[1.55]	[28.22]	[1975.02,1980.04]			[1975.06,1999.12]	
EXRUK	3	26.33	29.79	16.86	−43.41	1993.04	0.000196	0.855	1992.11	0.228
		[1.31]	[1.49]	[2.46]	[8.72]	[1992.08,1995.10]			[1991.07,1995.11]	
EXRCAN	12	11.52	10.10	12.82	26.88	1986.12	0.0656	0.673	1983.04	0.467
		[0.49]	[0.69]	[0.66]	[10.90]	[1980.09,1992.10]			[1981.08,1985.02]	
Producer prices										
PWFSA	9	4.30	4.60	3.14	−31.82	1991.08	0.0270	0.582	1973.09	0.00422
		[0.19]	[0.21]	[0.41]	[9.51]	[1989.10,1998.01]			[1972.02,1975.09]	
PWFCSA	9	5.34	5.70	3.95	−30.68	1991.08	0.0243	0.400	1973.09	0.000149
		[0.23]	[0.25]	[0.49]	[9.08]	[1989.06,1997.10]			[1972.06,1975.05]	
PWIMSA	4	4.28	4.65	2.96	−36.35	1991.03	0.0210	0.00749	1981.05	2.89E-008
		[0.22]	[0.24]	[0.46]	[10.47]	[1990.06,1997.12]			[1980.04,1982.12]	
PWCMSA	11	20.74	17.70	30.36	71.53	1990.05	6.59E-008	8.19E-006	1973.09	6.75E-011
		[0.93]	[1.03]	[1.83]	[14.32]	[1987.02,1991.04]			[1972.12,1974.05]	
PWFXSA	9	4.43	3.18	4.66	46.67	1973.01	0.125	0.00184	1973.06	6.29E-005
		[0.21]	[0.53]	[0.23]	[25.55]	[1968.02,1974.06]			[1973.01,1974.03]	
PW160A	12	16.83	20.85	15.67	−24.84	1980.08	0.0542	0.0785	1983.04	0.0474
		[0.75]	[1.57]	[0.84]	[6.96]	[1977.06,1986.11]			[1982.01,1984.08]	
PW150A	9	16.06	24.56	13.26	−45.99	1981.03	4.58E-008	0.330	1983.04	0.291
		[0.85]	[1.60]	[0.92]	[5.15]	[1980.08,1983.05]			[1981.12,1986.02]	
PW561	5	50.11	25.95	95.24	267.01	1986.01	1.30E-036	0.000930	1990.04	1.37E-007
		[2.96]	[3.16]	[4.31]	[47.62]	[1984.11,1986.02]			[1988.09,1990.07]	
PWCM	9	5.16	3.76	5.53	47.20	1968.05	0.00736	0.000228	1969.07	0.0897
		[0.20]	[0.44]	[0.23]	[18.35]	[1963.05,1970.02]			[1968.03,1970.07]	

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Series	p	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$	τ_m	p-value$_m$
PWXFA	9	4.56	5.82	4.21	−27.75	1974.12	0.0172	5.05E-007	1981.03	1.33E-010
		[0.20]	[0.43]	[0.23]	[6.64]	[1972.05,1982.05]			[1980.08,1981.10]	
PSM99Q	12	13.82	9.49	14.66	54.41	1966.07	0.00842	0.00391	1981.03	0.844
		[0.55]	[1.34]	[0.59]	[22.67]	[1962.07,1968.03]			[1977.06,1986.01]	
PSCCOM	12	18.86	15.47	20.46	32.27	1972.11	0.0278	0.000375	1975.09	0.0156
		[0.75]	[1.31]	[0.90]	[12.61]	[1963.07,1975.05]			[1974.09,1977.04]	
PSCFOO	12	28.89	21.88	32.12	46.76	1972.08	0.00155	0.170	1973.08	1.43E-005
		[1.21]	[2.12]	[1.44]	[15.64]	[1966.12,1974.03]			[1972.09,1974.03]	
PSCMAT	6	19.70	20.90	17.04	−18.43	1987.07	0.181	0.000242	1983.11	0.908
		[0.75]	[0.90]	[1.34]	[7.29]	[1982.02,1999.12]			[1980.11,1987.12]	
PZFR	6	19.26	20.44	17.79	−12.99	1989.04	0.790	0.0615	1985.08	2.55E-009
		[0.94]	[1.26]	[1.40]	[8.71]	[1976.02,1999.12]			[1985.02,1986.03]	
PCGOLD	7	47.50	69.83	37.94	−45.66	1983.03	9.00E-007	0.000304	1980.01	1.66E-005
		[2.75]	[4.77]	[3.12]	[5.81]	[1982.06,1985.09]			[1979.01,1980.10]	
Consumer prices										
PUNEW	9	2.04	2.22	1.40	−37.02	1991.03	0.00189	0.0281	1978.03	0.000320
		[0.09]	[0.10]	[0.18]	[8.73]	[1990.04,1995.08]			[1976.03,1979.07]	
PU81	12	3.92	5.41	3.12	−42.36	1979.02	1.17E-008	0.00143	1973.08	2.37E-021
		[0.18]	[0.29]	[0.21]	[5.03]	[1978.05,1981.10]			[1973.05,1974.02]	
PUH	9	2.35	3.30	1.51	−54.20	1982.12	5.38E-012	0.00187	1982.12	0.00231
		[0.13]	[0.18]	[0.16]	[5.54]	[1982.09,1985.03]			[1982.06,1983.12]	
PU83	6	3.72	2.88	5.28	83.29	1986.01	6.66E-013	0.214	1991.11	0.000202
		[0.16]	[0.18]	[0.25]	[14.56]	[1983.08,1986.07]			[1989.09,1992.05]	
PU84	8	5.56	5.03	6.04	20.11	1978.12	0.281	0.0576	1976.08	0.000286
		[0.23]	[0.34]	[0.32]	[10.30]	[1960.02,1987.06]			[1974.02,1977.11]	
PU85	6	2.11	2.77	1.09	−60.75	1984.03	2.28E-016	0.000250	1975.12	0.106
		[0.10]	[0.12]	[0.15]	[5.70]	[1984.01,1985.11]			[1974.11,1981.06]	
PUC	9	3.12	2.66	3.34	25.53	1972.12	0.171	0.191	1981.02	0.000266
		[0.13]	[0.23]	[0.16]	[12.43]	[1960.02,1976.10]			[1978.11,1982.04]	
PUCD	12	2.64	2.97	1.85	−37.72	1988.03	3.19E-005	0.0338	1976.03	0.000347
		[0.11]	[0.12]	[0.19]	[6.97]	[1987.02,1991.10]			[1974.10,1977.09]	
PUS	9	2.20	2.75	1.37	−50.29	1983.12	2.31E-011	2.99E-007	1971.02	2.66E-006
		[0.10]	[0.12]	[0.15]	[5.80]	[1983.07,1986.03]			[1970.03,1972.02]	
PUXF	9	2.21	2.43	1.44	−40.60	1991.03	4.29E-005	0.000539	1973.08	0.00259
		[0.09]	[0.10]	[0.18]	[7.77]	[1990.05,1994.02]			[1972.03,1975.03]	
PUXHS	12	2.55	2.75	1.81	−34.19	1991.03	0.000698	0.328	1976.01	0.000371
		[0.09]	[0.10]	[0.20]	[7.61]	[1989.08,1994.10]			[1974.04,1977.05]	
PUXM	9	2.35	2.59	1.49	−42.70	1991.03	8.50E-006	0.0397	1973.09	0.0114
		[0.09]	[0.10]	[0.19]	[7.63]	[1990.07,1993.10]			[1971.12,1976.01]	
GMDC	9	1.57	1.27	1.71	34.95	1972.08	0.0151	0.334	1981.02	0.0608
		[0.06]	[0.11]	[0.07]	[13.05]	[1964.11,1975.06]			[1977.11,1982.10]	
GMDCD	12	2.61	2.86	2.29	−19.83	1982.08	0.121	0.000213	1967.01	0.00463
		[0.11]	[0.15]	[0.17]	[7.07]	[1976.02,1998.01]			[1966.07,1968.05]	
GMDCN	9	2.97	2.39	3.25	36.11	1972.12	0.0336	0.456	1981.03	0.000406
		[0.13]	[0.23]	[0.16]	[14.73]	[1963.03,1975.09]			[1978.12,1982.05]	
GMDCS	9	1.38	0.93	1.60	71.06	1972.12	2.18E-007	0.890	1992.04	0.00840
		[0.05]	[0.09]	[0.06]	[18.45]	[1970.01,1973.07]			[1990.05,1992.06]	
Miscellaneous										
PMI	12	2655.69	2961.72	2160.68	−27.05	1984.09	0.00264	0.0233	1971.01	0.131
		[102.44]	[128.34]	[163.22]	[6.35]	[1981.09,1990.12]			[1968.06,1972.12]	
PMP	12	3902.86	4365.08	3141.87	−28.02	1984.11	0.00214	0.0800	1983.01	0.545
		[153.93]	[192.11]	[246.51]	[6.48]	[1982.09,1991.06]			[1980.02,1987.01]	
PMNO	4	4200.77	4596.37	3555.21	−22.65	1984.10	0.0484	0.0103	1969.12	0.334
		[173.08]	[217.84]	[278.27]	[7.08]	[1979.07,1995.05]			[1964.08,1974.12]	
PMDEL	12	3459.61	4463.61	2173.53	−51.31	1982.06	1.32E-011	0.00564	1977.02	0.177
		[163.55]	[206.96]	[234.23]	[5.71]	[1982.02,1984.11]			[1975.05,1980.02]	
PMNV	12	3398.14	3738.15	2494.91	−33.26	1989.01	0.000229	9.44E-005	1976.03	0.00351
		[126.60]	[145.53]	[237.20]	[6.86]	[1987.11,1993.02]			[1974.07,1977.11]	
PMEMP	12	2926.58	3244.98	2178.46	−32.87	1988.01	0.000137	0.000187	1969.04	0.00730
		[108.78]	[127.12]	[194.86]	[6.56]	[1986.06,1991.12]			[1967.07,1970.07]	
PMCP	12	4232.96	4713.39	3891.50	−17.44	1976.08	0.230	0.00745	1983.02	0.000117
		[179.13]	[276.42]	[233.03]	[6.92]	[1968.04,1999.02]			[1982.01,1985.01]	
HHSNTN	0	3913.13	2206.91	5326.30	141.35	1978.02	8.20E-021	0.663	1992.01	0.882
		[173.67]	[235.51]	[214.33]	[27.53]	[1976.08,1978.04]			[1960.02,1999.12]	
F6EDM	12	63.20	93.62	55.11	−41.14	1972.05	2.86E-007	0.00866	1973.01	1.34E-015
		[2.81]	[5.91]	[3.04]	[4.94]	[1971.08,1975.08]			[1972.08,1973.10]	
FTMC6	12	102.95	109.73	78.86	−28.13	1990.10	0.0214	1.15E-005	1983.02	0.000927
		[4.01]	[4.48]	[8.44]	[8.23]	[1988.03,1995.08]			[1982.02,1984.01]	
FTMM6	5	60.34	74.72	32.29	−56.78	1988.02	2.55E-011	0.0207	1986.11	5.05E-006
		[2.94]	[3.41]	[4.77]	[6.68]	[1987.12,1990.01]			[1986.08,1988.02]	

Results for SupW tests for structural change in conditional volatility for individual series when using a nonlinear AR model with a single structural change during expansions for the conditional mean, Wald tests for nonlinearity in the conditional mean and SupW tests for structural change during expansions in the conditional mean. The column headed σ_0 contains the estimate of the conditional standard deviation under the null hypothesis of constant volatility. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation before and after the volatility break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated break date for the variance (mean during expansions) is given in the column headed τ_v (τ_m), with the 90% confidence interval for the break date given in brackets. The column headed p-value$_v$ (p-value$_m$) contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity during expansions in the conditional mean. Figures in brackets below parameter estimates are standard errors.

Table A.5: Tests for structural change in expansion volatility

Series	p	σ_{R}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production									
IP	3	11.91	7.54	8.76	5.99	−31.56	1984.03	0.00460	1.41E-005
		[0.34]	[0.14]	[0.49]	[0.56]	[7.46]	[1982.06,1992.07]		
IPP	3	12.23	7.77	8.32	5.75	−30.93	1992.07	0.0365	1.97E-006
		[0.33]	[0.13]	[0.39]	[0.75]	[9.56]	[1990.05,1999.05]		
IPF	3	12.95	8.43	8.91	6.70	−24.84	1992.07	0.178	9.48E-006
		[0.34]	[0.14]	[0.43]	[0.82]	[9.84]	[1988.06,1999.12]		
IPC	0	14.10	10.05	11.35	8.31	−26.82	1984.08	0.0156	0.000900
		[0.37]	[0.15]	[0.60]	[0.69]	[7.20]	[1981.08,1994.02]		
IPCD	1	35.69	24.88	23.88	27.32	14.41	1989.04	0.949	0.00307
		[0.64]	[0.26]	[1.62]	[2.53]	[13.12]	[1960.02,1999.12]		
IPCN	2	9.23	8.58	9.13	6.88	−24.64	1991.07	0.0464	0.459
		[0.32]	[0.13]	[0.38]	[0.66]	[7.87]	[1987.11,1999.03]		
IPE	5	18.34	11.85	12.60	9.25	−26.55	1992.04	0.102	4.53E-006
		[0.40]	[0.16]	[0.60]	[1.11]	[9.49]	[1988.03,1999.12]		
IPI	3	13.60	9.66	10.59	6.34	−40.14	1992.06	0.00118	0.000800
		[0.36]	[0.15]	[0.49]	[0.92]	[9.14]	[1991.09,1996.07]		
IPM	12	15.81	9.66	11.93	6.76	−43.32	1984.03	3.18E-006	3.02E-006
		[0.39]	[0.16]	[0.64]	[0.72]	[6.77]	[1983.06,1988.05]		
IPMD	12	24.06	13.56	16.27	10.16	−37.56	1984.01	0.000474	4.94E-008
		[0.47]	[0.19]	[0.95]	[1.06]	[7.46]	[1983.01,1990.07]		
IPMND	10	18.34	11.41	12.32	7.55	−38.72	1993.05	0.00924	1.87E-006
		[0.41]	[0.16]	[0.60]	[1.23]	[10.38]	[1992.05,1998.04]		
IPMFG	3	13.49	8.17	9.48	6.52	−31.21	1984.01	0.00862	2.55E-006
		[0.36]	[0.14]	[0.56]	[0.63]	[7.76]	[1981.12,1993.04]		
IPD	3	18.34	10.67	11.96	9.05	−24.35	1984.01	0.158	1.32E-006
		[0.42]	[0.17]	[0.79]	[0.88]	[8.92]	[1978.08,1999.12]		
IPN	3	11.10	7.78	8.57	5.58	−34.82	1990.04	0.00542	0.000659
		[0.33]	[0.13]	[0.42]	[0.70]	[8.78]	[1989.03,1996.04]		
IPMIN	1	15.00	12.99	14.49	10.33	−28.69	1986.11	0.0175	0.218
		[0.43]	[0.17]	[0.76]	[1.01]	[7.89]	[1983.07,1995.05]		
IPUT	10	16.13	17.84	13.08	21.96	67.84	1979.01	1.03E-006	0.435
		[0.50]	[0.20]	[1.17]	[1.09]	[17.12]	[1975.01,1980.01]		
IPX	3	931.17	587.46	704.84	493.42	−29.99	1984.03	0.0224	6.17E-005
		[3.24]	[1.35]	[48.97]	[43.83]	[7.89]	[1982.02,1993.12]		
IPXMCA	3	1035.45	666.78	782.87	521.50	−33.39	1984.01	0.00247	5.08E-005
		[3.21]	[1.29]	[44.95]	[50.28]	[7.47]	[1982.03,1991.07]		
IPXDCA	3	1342.12	798.77	937.54	714.69	−23.77	1981.01	0.275	2.65E-005
		[3.98]	[1.66]	[80.72]	[62.83]	[9.38]	[1973.07,1999.07]		
IPXNCA	3	914.77	647.10	734.64	454.84	−38.09	1991.06	0.00146	0.00174
		[3.23]	[1.35]	[38.98]	[57.76]	[8.52]	[1990.10,1996.01]		
IPXMIN	1	1543.09	1145.71	1295.29	855.97	−33.92	1990.01	0.0122	0.0133
		[4.43]	[1.85]	[75.13]	[104.56]	[8.94]	[1988.07,1996.08]		
IPXUT	6	1578.53	1656.80	1236.78	1907.98	54.27	1980.12	0.00216	0.721
		[5.18]	[2.17]	[135.71]	[104.95]	[18.94]	[1975.10,1982.12]		
GMPYQ	9	6.17	4.15	4.47	3.63	−18.84	1986.03	0.411	0.000350
		[0.25]	[0.10]	[0.27]	[0.34]	[9.05]	[1974.12,1999.12]		
GMYXPQ	9	5.77	4.01	3.43	4.26	24.07	1972.05	0.315	0.000303
		[0.24]	[0.09]	[0.33]	[0.22]	[13.41]	[1960.02,1982.12]		
(Un)employment									
LHEL	12	2478.86	2164.14	1971.65	3073.14	55.87	1993.12	0.000182	0.213
		[5.35]	[2.16]	[101.88]	[221.39]	[13.82]	[1990.06,1995.10]		
LHELX	4	58.04	46.17	57.30	40.13	−29.96	1973.11	0.00465	0.0483
		[0.82]	[0.33]	[3.73]	[2.75]	[6.63]	[1971.02,1983.02]		
LHEM	8	3.91	3.22	3.75	2.36	−37.11	1986.02	7.47E-005	0.0796
		[0.21]	[0.09]	[0.18]	[0.23]	[6.89]	[1984.11,1990.10]		
LHNAG	8	4.08	2.98	3.37	2.38	−29.24	1985.09	0.00416	0.00169
		[0.20]	[0.08]	[0.17]	[0.21]	[7.02]	[1983.01,1992.10]		
LHUR	12	256.37	177.90	209.89	172.34	−17.89	1965.12	0.644	0.000415
		[1.59]	[0.64]	[21.55]	[8.98]	[9.45]	[1960.02,1986.01]		
LHU680	7	524.84	534.26	763.78	492.83	−35.47	1966.02	0.000160	0.872
		[2.58]	[1.04]	[54.82]	[23.29]	[5.54]	[1964.07,1969.08]		
LHU5	12	62.40	48.06	61.45	43.24	−29.63	1969.12	0.00500	0.0154
		[0.82]	[0.33]	[4.24]	[2.55]	[6.39]	[1966.06,1976.10]		
LHU14	5	76.07	58.73	73.47	53.56	−27.10	1969.10	0.00500	0.00702
		[0.85]	[0.34]	[4.66]	[2.76]	[5.95]	[1966.02,1976.02]		
LHU15	4	75.42	57.54	75.96	50.57	−33.43	1971.03	3.10E-005	0.00471
		[0.85]	[0.34]	[4.41]	[2.71]	[5.26]	[1969.03,1975.01]		
LHU26	4	102.70	91.24	113.45	82.95	−26.88	1971.02	0.00253	0.229
		[1.04]	[0.42]	[6.73]	[4.11]	[5.65]	[1967.09,1976.09]		
LHU27	7	90.05	76.37	101.95	60.12	−41.03	1976.06	2.00E-008	0.132
		[1.01]	[0.41]	[5.24]	[4.18]	[5.10]	[1975.07,1979.10]		
LHCH	12	194.96	233.16	214.93	328.18	52.69	1989.09	0.000787	0.134
		[1.69]	[0.74]	[10.89]	[24.86]	[13.92]	[1986.12,1991.09]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	2.78	1.71	2.30	1.03	−55.30	1983.07	4.16E-012	7.41E-006
		[0.16]	[0.07]	[0.11]	[0.12]	[5.88]	[1983.03,1985.10]		
LP	3	3.21	1.96	2.65	1.13	−57.42	1983.08	1.71E-011	1.98E-005
		[0.18]	[0.07]	[0.14]	[0.15]	[6.23]	[1983.05,1986.02]		
LPGD	3	6.10	3.45	4.60	1.99	−56.75	1984.03	8.91E-009	2.92E-006
		[0.25]	[0.10]	[0.27]	[0.31]	[7.14]	[1983.12,1987.05]		
LPMI	12	11.11	8.12	9.04	5.75	−36.39	1989.08	0.0339	0.0214
		[0.38]	[0.15]	[0.57]	[0.91]	[10.80]	[1988.03,1998.08]		
LPCC	5	14.41	9.93	13.27	5.65	−57.40	1984.03	4.04E-009	0.00577
		[0.43]	[0.17]	[0.78]	[0.88]	[7.07]	[1983.12,1987.04]		
LPEM	3	5.94	2.95	3.99	1.68	−58.05	1983.10	8.76E-007	1.38E-007
		[0.25]	[0.10]	[0.28]	[0.31]	[8.22]	[1983.05,1987.11]		
LPED	5	8.46	4.03	5.35	2.43	−54.55	1983.10	0.000115	2.62E-007
		[0.31]	[0.13]	[0.42]	[0.47]	[9.45]	[1983.03,1989.10]		
LPEN	2	4.53	2.47	3.42	1.52	−55.52	1980.09	7.72E-012	1.24E-008
		[0.20]	[0.08]	[0.18]	[0.18]	[5.80]	[1980.04,1983.03]		
LPSP	6	2.16	1.36	1.67	0.97	−41.80	1984.02	1.92E-006	5.63E-006
		[0.14]	[0.06]	[0.09]	[0.10]	[6.45]	[1982.11,1987.10]		
LPTU	12	5.85	4.47	5.59	3.46	−38.15	1979.06	0.00186	0.0600
		[0.29]	[0.12]	[0.39]	[0.37]	[7.94]	[1975.08,1985.08]		
LPT	12	3.32	2.24	2.74	1.52	−44.60	1985.03	1.36E-006	0.000299
		[0.18]	[0.07]	[0.14]	[0.17]	[6.84]	[1984.07,1988.12]		
LPFR	10	1.44	1.38	1.59	1.14	−28.02	1983.10	0.00155	0.728
		[0.13]	[0.05]	[0.07]	[0.08]	[6.20]	[1981.02,1990.03]		
LPS	10	2.31	1.81	2.20	1.36	−38.52	1983.07	4.54E-006	0.0232
		[0.16]	[0.06]	[0.11]	[0.12]	[6.16]	[1982.07,1987.09]		
LPGOV	12	4.12	2.17	2.52	1.10	−56.63	1991.06	0.000136	1.06E-007
		[0.20]	[0.08]	[0.16]	[0.27]	[11.04]	[1991.04,1995.03]		
LW	4	163.11	114.72	138.79	90.37	−34.89	1984.04	0.00106	0.00305
		[1.42]	[0.56]	[8.33]	[8.38]	[7.19]	[1981.12,1989.11]		
LPHRM	12	343.37	219.10	262.28	164.00	−37.47	1984.03	0.00144	0.000166
		[1.93]	[0.78]	[16.21]	[18.31]	[7.98]	[1983.01,1991.07]		
LPMOSA	12	182.66	130.33	150.47	109.80	−27.03	1980.12	0.0322	0.00320
		[1.42]	[0.57]	[9.25]	[9.34]	[7.66]	[1976.09,1992.08]		
Wages and salaries									
LEH	12	3.28	2.27	2.82	1.16	−58.94	1989.05	4.14E-010	0.00191
		[0.20]	[0.08]	[0.14]	[0.20]	[7.35]	[1989.02,1991.04]		
LEHCC	11	6.77	5.49	7.06	4.50	−36.31	1976.05	8.16E-005	0.0771
		[0.29]	[0.12]	[0.43]	[0.34]	[6.16]	[1974.03,1981.05]		
LEHM	11	4.52	3.15	3.92	2.38	−39.33	1980.11	3.78E-005	0.00166
		[0.22]	[0.09]	[0.22]	[0.22]	[6.69]	[1978.11,1985.06]		
LEHTU	11	4.50	4.22	5.45	3.00	−45.09	1984.02	1.90E-007	0.632
		[0.27]	[0.11]	[0.30]	[0.30]	[6.19]	[1983.07,1987.06]		
LEHTT	9	3.48	2.68	3.20	1.99	−37.64	1986.05	4.32E-005	0.0202
		[0.21]	[0.08]	[0.16]	[0.19]	[6.69]	[1985.04,1990.07]		
LEHFR	12	5.19	4.53	5.50	2.70	−50.83	1988.11	1.06E-009	0.248
		[0.26]	[0.10]	[0.25]	[0.34]	[6.52]	[1988.05,1990.10]		
LEHS	12	3.85	3.10	3.88	1.56	−59.87	1989.02	2.66E-013	0.0658
		[0.22]	[0.09]	[0.17]	[0.24]	[6.47]	[1988.11,1990.08]		
Construction									
HSFR	12	113.37	81.16	92.46	66.74	−27.82	1984.03	0.0101	0.00121
		[1.06]	[0.43]	[4.91]	[5.55]	[7.12]	[1981.02,1992.12]		
HSNE	4	257.83	173.88	189.63	153.79	−18.90	1984.03	0.244	8.21E-005
		[1.55]	[0.63]	[10.59]	[11.96]	[7.77]	[1976.12,1999.12]		
HSMW	3	189.37	159.64	175.72	125.52	−28.57	1988.04	0.0241	0.134
		[1.50]	[0.60]	[8.90]	[12.96]	[8.22]	[1984.08,1996.06]		
HSSOU	12	147.56	94.73	103.08	84.07	−18.44	1984.03	0.249	3.26E-006
		[1.13]	[0.46]	[5.64]	[6.37]	[7.63]	[1973.10,1999.12]		
HSWST	2	175.06	128.43	136.26	117.39	−13.85	1985.01	0.485	0.000621
		[1.24]	[0.50]	[6.64]	[7.88]	[7.15]	[1969.02,1999.12]		
HSBR	2	98.71	64.00	71.15	43.34	−39.08	1990.06	0.00212	3.82E-005
		[0.98]	[0.39]	[3.60]	[6.12]	[9.13]	[1989.09,1995.09]		
HSBNE	4	151.96	120.56	133.70	102.27	−23.51	1985.01	0.0801	0.0513
		[1.41]	[0.53]	[7.39]	[8.71]	[7.77]	[1979.07,1997.08]		
HSBMW	12	156.55	103.92	116.45	68.54	−41.15	1990.05	0.00191	0.000631
		[1.38]	[0.52]	[6.21]	[10.44]	[9.50]	[1989.04,1995.04]		
HSBSOU	12	114.12	76.96	64.26	81.13	26.26	1969.07	0.365	0.000306
		[1.12]	[0.42]	[7.27]	[4.16]	[15.68]	[1961.02,1976.04]		
HSBWST	1	145.21	94.74	101.81	81.61	−19.84	1987.05	0.294	8.29E-005
		[1.26]	[0.47]	[5.58]	[7.61]	[8.67]	[1981.07,1999.12]		
HNS	2	125.37	78.50	80.75	68.01	−15.78	1994.06	0.784	7.10E-007
		[1.08]	[0.42]	[3.78]	[8.16]	[10.85]	[1988.05,1999.12]		
HNSNE	12	236.70	182.54	152.35	196.64	29.07	1984.02	0.265	0.0312
		[1.87]	[0.76]	[16.63]	[11.37]	[15.94]	[1974.09,1992.08]		
HNSMW	11	189.61	126.81	92.74	132.46	42.83	1978.05	0.413	0.00104
		[1.64]	[0.66]	[18.98]	[7.73]	[30.39]	[1974.02,1983.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	159.40	99.47	108.39	72.28	−33.32	1994.06	0.0443	2.13E-005
		[1.40]	[0.57]	[6.03]	[10.52]	[10.39]	[1992.03,1999.06]		
HNSWST	12	188.94	124.60	132.92	92.51	−30.40	1995.05	0.183	0.000460
		[1.60]	[0.65]	[7.68]	[15.09]	[12.04]	[1993.02,1999.12]		
HNR	4	1082.15	515.91	545.13	379.53	−30.38	1994.06	0.149	8.16E-016
		[2.95]	[1.15]	[27.98]	[60.45]	[11.65]	[1991.10,1999.12]		
HMOB	3	90.82	47.63	59.36	36.02	−39.31	1980.09	1.31E-005	7.21E-012
		[0.85]	[0.34]	[3.25]	[3.24]	[6.39]	[1979.06,1985.06]		
CONTC	1	27.29	16.94	20.35	13.58	−33.28	1984.02	0.000627	3.03E-006
		[0.52]	[0.21]	[1.14]	[1.13]	[6.68]	[1982.03,1989.08]		
CONPC	6	24.17	17.75	23.48	14.92	−36.47	1977.04	3.19E-005	0.00518
		[0.53]	[0.21]	[1.43]	[1.01]	[5.77]	[1975.11,1981.09]		
CONQC	2	44.99	34.03	40.12	28.32	−29.41	1983.09	0.00483	0.0128
		[0.74]	[0.29]	[2.30]	[2.22]	[6.86]	[1980.08,1990.06]		
CONDO9	9	125.60	90.06	71.47	95.03	32.96	1968.02	0.181	0.00101
		[1.11]	[0.45]	[8.74]	[4.52]	[17.46]	[1960.02,1972.03]		
Trade									
MSMTQ	12	14.87	11.23	12.10	8.03	−33.68	1992.08	0.00432	0.00279
		[0.37]	[0.15]	[0.51]	[0.97]	[8.49]	[1991.05,1997.04]		
MSMQ	12	19.36	15.16	17.40	12.92	−25.73	1980.10	0.00781	0.0139
		[0.44]	[0.18]	[0.89]	[0.89]	[6.38]	[1977.05,1989.07]		
MSDQ	12	27.71	21.81	24.92	18.70	−24.95	1980.10	0.0148	0.0187
		[0.53]	[0.21]	[1.31]	[1.31]	[6.58]	[1976.10,1990.05]		
MSNQ	3	16.47	12.45	13.90	10.77	−22.51	1983.05	0.0350	0.00346
		[0.39]	[0.16]	[0.70]	[0.75]	[6.63]	[1979.03,1994.09]		
WTQ	3	18.36	15.51	17.97	11.02	−38.69	1987.02	2.66E-005	0.123
		[0.46]	[0.18]	[0.84]	[1.13]	[6.92]	[1985.12,1991.02]		
WTDQ	5	22.19	17.40	18.60	12.16	−34.63	1993.07	0.0125	0.0163
		[0.48]	[0.19]	[0.82]	[1.71]	[9.61]	[1991.11,1998.05]		
WTNQ	4	24.94	20.85	23.76	15.54	−34.61	1987.02	0.000200	0.0862
		[0.52]	[0.21]	[1.09]	[1.47]	[6.87]	[1985.09,1991.11]		
RTQ	11	18.21	12.25	14.24	8.52	−40.20	1987.05	0.000102	0.000199
		[0.43]	[0.17]	[0.73]	[0.99]	[7.62]	[1986.07,1992.01]		
RTDQ	2	44.08	27.02	30.98	16.14	−47.92	1990.02	0.000110	1.06E-005
		[0.66]	[0.27]	[1.66]	[2.74]	[9.28]	[1989.09,1994.01]		
RTNQ	12	11.39	8.58	10.88	6.78	−37.73	1978.03	1.83E-007	0.00349
		[0.33]	[0.13]	[0.52]	[0.46]	[5.21]	[1977.02,1981.10]		
Inventories									
IVMTQ	3	5.92	3.64	4.63	3.34	−27.85	1968.10	0.00516	1.29E-008
		[0.21]	[0.09]	[0.31]	[0.17]	[6.03]	[1965.09,1975.08]		
IVMFGQ	12	5.06	4.00	4.35	3.43	−21.22	1986.04	0.0882	0.0180
		[0.22]	[0.09]	[0.21]	[0.27]	[7.24]	[1980.04,1998.07]		
IVMFDQ	12	6.41	5.04	6.24	4.59	−26.39	1971.03	0.0165	0.0223
		[0.26]	[0.11]	[0.42]	[0.26]	[6.50]	[1967.07,1980.11]		
IVMFNQ	2	5.96	5.21	5.81	4.13	−28.93	1986.12	0.00311	0.191
		[0.26]	[0.10]	[0.26]	[0.35]	[6.88]	[1984.04,1993.03]		
IVWRQ	12	12.04	7.42	8.45	5.96	−29.41	1985.02	0.00396	1.83E-007
		[0.32]	[0.13]	[0.43]	[0.51]	[6.99]	[1982.06,1992.04]		
IVRRQ	12	11.40	8.10	8.90	6.47	−27.27	1988.01	0.0210	0.000514
		[0.33]	[0.13]	[0.43]	[0.61]	[7.74]	[1984.03,1995.12]		
IVSRQ	12	21.47	15.84	17.04	11.29	−33.76	1992.10	0.00827	0.00166
		[0.45]	[0.18]	[0.74]	[1.45]	[8.98]	[1991.05,1997.10]		
IVSRMQ	12	29.87	23.76	25.51	16.79	−34.21	1993.01	0.0142	0.0298
		[0.56]	[0.23]	[1.16]	[2.32]	[9.57]	[1991.12,1998.07]		
IVSRWQ	2	24.94	19.94	13.84	21.00	51.67	1965.12	0.0291	0.0226
		[0.50]	[0.20]	[2.11]	[0.88]	[23.98]	[1961.03,1967.09]		
IVSRRQ	5	25.91	19.21	20.35	14.16	−30.40	1993.08	0.129	0.00812
		[0.54]	[0.22]	[1.04]	[2.19]	[11.35]	[1991.10,1999.12]		
Orders									
MOCMQ	12	36.13	26.49	33.79	24.24	−28.27	1968.12	0.00725	0.00171
		[0.59]	[0.24]	[2.34]	[1.30]	[6.28]	[1965.03,1975.01]		
MDOQ	6	51.08	34.42	35.89	28.40	−20.85	1993.03	0.332	1.51E-005
		[0.66]	[0.27]	[1.60]	[3.24]	[9.68]	[1988.07,1999.12]		
MSONDQ	9	87.76	72.91	46.45	78.42	68.84	1966.10	0.00227	0.0776
		[0.98]	[0.39]	[7.46]	[3.40]	[28.09]	[1963.02,1967.09]		
MO	6	30.04	20.97	21.84	17.43	−20.17	1993.03	0.325	5.84E-005
		[0.51]	[0.20]	[0.94]	[1.89]	[9.32]	[1988.05,1999.12]		
MOWU	6	42.45	30.03	31.30	24.84	−20.66	1993.03	0.320	0.000166
		[0.61]	[0.25]	[1.37]	[2.77]	[9.50]	[1987.09,1999.12]		
MDO	6	50.45	34.23	35.79	27.88	−22.10	1993.03	0.252	1.92E-005
		[0.66]	[0.26]	[1.58]	[3.18]	[9.54]	[1989.03,1999.12]		
MDUWU	6	51.27	36.41	37.77	30.85	−18.33	1993.03	0.479	0.000216
		[0.67]	[0.27]	[1.67]	[3.38]	[9.64]	[1985.12,1999.12]		
MNO	12	18.68	12.52	13.30	9.04	−32.02	1993.08	0.0514	5.24E-005
		[0.42]	[0.17]	[0.63]	[1.32]	[10.39]	[1991.10,1999.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	23.80	20.25	22.05	18.44	−16.40	1980.10	0.204	0.0875
		[0.49]	[0.20]	[1.10]	[1.10]	[6.47]	[1972.02,1999.12]		
MU	3	9.02	7.71	8.86	7.24	−18.24	1971.09	0.204	0.121
		[0.31]	[0.12]	[0.58]	[0.37]	[6.83]	[1961.05,1985.11]		
MDU	3	9.30	8.04	9.38	7.50	−20.00	1971.09	0.114	0.152
		[0.32]	[0.13]	[0.61]	[0.39]	[6.63]	[1963.09,1983.11]		
MNU	12	21.75	16.98	18.92	15.08	−20.32	1980.08	0.0919	0.0131
		[0.47]	[0.19]	[1.01]	[1.00]	[6.81]	[1973.10,1994.11]		
MPCON	5	87.73	75.39	52.39	81.37	55.30	1967.12	0.00116	0.115
		[0.94]	[0.38]	[6.33]	[3.23]	[19.76]	[1964.03,1969.04]		
MPCONQ	9	88.33	75.40	55.49	80.58	45.20	1967.12	0.00524	0.0850
		[0.92]	[0.37]	[6.10]	[3.11]	[16.90]	[1963.06,1969.12]		
Consumption									
GMCQ	8	8.41	5.96	6.81	4.17	−38.81	1988.04	0.000167	0.000951
		[0.29]	[0.12]	[0.33]	[0.48]	[7.64]	[1987.02,1992.09]		
GMCDQ	8	42.32	28.07	30.80	20.56	−33.25	1990.02	0.0201	0.000152
		[0.65]	[0.26]	[1.63]	[2.69]	[9.43]	[1988.10,1997.10]		
GMCNQ	12	8.39	7.25	8.51	5.50	−35.42	1984.11	5.47E-005	0.180
		[0.31]	[0.13]	[0.41]	[0.48]	[6.43]	[1983.01,1989.03]		
GMCSQ	10	4.35	3.66	2.72	4.05	48.77	1971.11	0.00334	0.109
		[0.22]	[0.09]	[0.29]	[0.19]	[17.52]	[1966.01,1973.10]		
GMCANQ	5	118.96	74.17	81.06	52.66	−35.03	1991.08	0.0344	2.88E-005
		[1.10]	[0.44]	[4.56]	[8.05]	[10.58]	[1990.09,1999.08]		
Money and credit									
FM1	9	5.13	4.39	3.41	5.25	54.14	1979.03	5.09E-005	0.157
		[0.24]	[0.10]	[0.28]	[0.26]	[14.84]	[1974.07,1981.04]		
FM2	12	2.83	2.31	1.38	2.48	80.09	1966.04	0.00493	0.0796
		[0.18]	[0.07]	[0.28]	[0.12]	[36.95]	[1962.05,1966.10]		
FM3	8	3.04	2.50	1.39	2.71	95.35	1966.04	0.000138	0.0626
		[0.18]	[0.07]	[0.26]	[0.11]	[38.20]	[1963.10,1966.10]		
FML	12	3.17	3.42	2.87	3.91	36.27	1978.10	0.000882	0.451
		[0.19]	[0.08]	[0.18]	[0.17]	[10.55]	[1973.04,1981.12]		
FM2DQ	10	3.97	2.86	2.24	3.08	37.36	1970.12	0.0550	0.00132
		[0.20]	[0.08]	[0.25]	[0.15]	[16.56]	[1962.06,1975.09]		
FMFBA	11	2.68	2.59	2.85	2.43	−14.43	1975.11	0.506	0.761
		[0.18]	[0.07]	[0.18]	[0.14]	[7.31]	[1960.02,1997.03]		
FMBASE	12	4.09	4.01	3.52	4.46	26.68	1979.09	0.0767	0.852
		[0.23]	[0.09]	[0.24]	[0.24]	[11.04]	[1966.02,1986.02]		
FMRRA	11	10.50	10.85	8.89	11.46	28.80	1968.12	0.102	0.748
		[0.35]	[0.14]	[0.84]	[0.47]	[13.32]	[1960.02,1973.05]		
FMRNBA	1	23.17	17.05	13.21	19.80	49.85	1977.06	0.0104	0.0159
		[0.54]	[0.22]	[1.45]	[1.23]	[18.91]	[1968.07,1980.07]		
FMRNBC	1	20.75	14.88	10.10	16.30	61.33	1968.01	0.0128	0.00325
		[0.47]	[0.20]	[1.60]	[0.87]	[26.99]	[1962.04,1969.01]		
FCLS	2	3.94	3.98	3.66	5.12	39.82	1995.02	0.0383	0.954
		[0.27]	[0.11]	[0.22]	[0.43]	[14.43]	[1987.03,1997.06]		
FCSGV	3	13.69	9.51	10.43	8.73	−16.26	1987.03	0.634	0.00267
		[0.44]	[0.18]	[0.77]	[0.71]	[9.18]	[1974.06,1999.12]		
FCLRE	3	2.79	2.94	2.53	4.76	87.83	1995.11	9.84E-006	0.744
		[0.25]	[0.10]	[0.19]	[0.39]	[20.68]	[1992.04,1996.05]		
FCLIN	3	4.95	3.92	3.37	6.52	93.43	1996.01	1.02E-006	0.0876
		[0.29]	[0.12]	[0.24]	[0.51]	[20.43]	[1994.02,1996.09]		
FCLNBF	1	19.70	19.54	14.75	24.95	69.20	1985.09	0.000108	0.951
		[0.60]	[0.29]	[1.51]	[1.60]	[20.42]	[1982.12,1986.11]		
FCLNQ	7	11.12	8.55	5.79	9.56	65.26	1971.01	0.000113	0.00938
		[0.33]	[0.14]	[0.70]	[0.42]	[21.22]	[1967.06,1972.07]		
FCLBMC	8	27117.87	30560.15	9331.11	50393.85	440.06	1979.09	1.78E-037	0.480
		[23.51]	[9.48]	[2251.03]	[2175.79]	[132.35]	[1978.09,1979.10]		
CCI30M	12	80.32	86.07	49.92	110.05	120.48	1973.10	1.82E-009	0.627
		[1.15]	[0.50]	[7.05]	[5.74]	[33.18]	[1971.03,1973.12]		
CCINT	8	2878813.13	2299715.47	831766.51	2902982.16	249.01	1981.07	3.43E-008	0.210
		[280.71]	[107.12]	[283290.26]	[181606.27]	[120.86]	[1980.04,1981.09]		
CCINV	7	1314651.20	1168472.16	311632.55	1480566.06	375.10	1981.02	6.66E-011	0.516
		[195.90]	[74.76]	[140909.59]	[85041.99]	[216.55]	[1980.02,1981.03]		
Stock prices									
FSNCOM	2	60.41	33.63	35.38	29.56	−16.43	1988.12	0.589	2.87E-010
		[0.69]	[0.28]	[1.89]	[2.89]	[9.31]	[1974.10,1999.12]		
FSNIN	2	67.27	35.16	38.60	29.23	−24.27	1988.12	0.171	8.56E-011
		[0.78]	[0.32]	[2.34]	[3.08]	[9.21]	[1983.05,1999.12]		
FSNTR	2	86.94	51.07	55.32	42.13	−23.85	1990.03	0.115	1.22E-008
		[0.88]	[0.36]	[2.88]	[4.18]	[8.53]	[1983.08,1999.04]		
FSNUT	5	52.42	32.30	39.19	30.13	−23.11	1976.01	0.106	2.37E-007
		[0.69]	[0.28]	[3.00]	[1.68]	[7.28]	[1971.10,1987.11]		
FSNFI	2	82.04	46.46	52.79	44.47	−15.76	1976.01	0.682	3.42E-009
		[0.86]	[0.35]	[4.66]	[2.61]	[8.93]	[1967.02,1999.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	58.24	33.26	34.33	30.19	−12.07	1990.05	0.946	3.16E-009
		[0.69]	[0.28]	[1.83]	[3.09]	[10.15]	[1960.02,1999.12]		
FSPIN	2	59.11	33.99	35.43	30.64	−13.53	1988.12	0.819	5.58E-009
		[0.70]	[0.28]	[1.92]	[2.93]	[9.52]	[1965.06,1999.12]		
FSPCAP	1	69.06	40.81	37.89	43.06	13.64	1978.01	0.817	1.79E-008
		[0.75]	[0.30]	[2.84]	[2.49]	[10.76]	[1960.02,1999.12]		
FSPTR	2	84.07	50.28	53.86	43.97	−18.35	1990.03	0.425	7.51E-007
		[0.97]	[0.38]	[3.10]	[4.11]	[8.96]	[1979.06,1999.12]		
FSPUT	5	54.09	33.61	25.74	35.00	35.98	1966.01	0.221	1.29E-007
		[0.66]	[0.27]	[3.72]	[1.57]	[20.57]	[1960.02,1972.01]		
FSPFI	2	89.46	51.45	48.56	64.98	33.82	1995.07	0.138	3.32E-008
		[0.97]	[0.38]	[2.73]	[5.92]	[14.33]	[1988.04,1999.12]		
Dividends and volume									
FSDXP	1	62.39	35.82	34.47	42.19	22.37	1993.12	0.605	1.88E-008
		[0.73]	[0.30]	[1.94]	[4.22]	[14.03]	[1965.06,1999.12]		
FSPXE	4	64.76	41.30	42.84	37.55	−12.36	1989.04	0.907	7.94E-006
		[0.77]	[0.31]	[2.33]	[3.63]	[9.73]	[1960.02,1999.12]		
FSNVV3	12	44.29	34.34	56.23	25.41	−54.82	1981.06	5.27E-012	0.0965
		[1.00]	[0.37]	[3.49]	[2.23]	[4.85]	[1981.01,1982.11]		
Interest rates									
FYFF	12	1000.11	353.56	425.89	200.12	−53.01	1988.04	0.0124	1.10E-014
		[3.08]	[1.24]	[37.51]	[54.63]	[13.48]	[1987.12,1997.01]		
FYCP	12	877.81	381.87	182.95	449.10	145.48	1968.12	0.000704	9.76E-012
		[2.87]	[1.20]	[54.79]	[31.85]	[75.55]	[1964.07,1969.04]		
FYGM3	12	845.16	327.73	126.90	366.73	188.99	1966.06	0.00303	1.90E-016
		[2.67]	[1.08]	[57.45]	[25.32]	[132.35]	[1962.09,1966.11]		
FYGM6	12	820.91	323.36	127.74	360.68	182.36	1966.05	0.00139	6.21E-018
		[2.56]	[1.03]	[52.99]	[23.14]	[118.53]	[1963.01,1966.09]		
FYGT1	12	805.75	361.00	180.14	419.73	133.00	1969.04	2.04E-005	3.98E-015
		[2.53]	[1.02]	[41.70]	[23.76]	[55.52]	[1966.01,1969.08]		
FYGT5	6	525.05	308.74	151.34	359.86	137.79	1969.04	2.26E-007	3.64E-007
		[2.19]	[0.89]	[31.03]	[17.69]	[50.14]	[1966.12,1969.09]		
FYGT10	12	437.31	266.46	88.06	302.97	244.04	1966.09	3.94E-008	2.94E-006
		[2.03]	[0.82]	[31.93]	[14.45]	[125.82]	[1965.02,1966.12]		
FYAAAC	12	326.82	188.50	101.11	266.27	163.35	1979.04	4.16E-013	4.17E-006
		[1.85]	[0.74]	[15.43]	[14.56]	[42.70]	[1976.12,1979.08]		
FYBAAC	4	278.84	173.12	89.27	244.88	174.31	1978.12	4.30E-015	6.98E-005
		[1.74]	[0.70]	[13.68]	[12.65]	[44.35]	[1976.12,1979.04]		
FWAFIT	3	474.54	277.74	420.42	203.68	−51.55	1981.05	5.90E-006	5.21E-005
		[2.58]	[1.21]	[33.56]	[24.18]	[6.93]	[1980.09,1983.10]		
FYFHA	4	424.23	265.82	111.60	408.51	266.06	1979.08	9.08E-020	0.000473
		[2.27]	[0.91]	[22.41]	[21.56]	[76.00]	[1977.12,1979.10]		
Exchange rates									
EXRUS	2	23.75	18.51	12.05	20.03	66.26	1979.06	0.0233	0.0853
		[0.71]	[0.25]	[2.24]	[1.09]	[32.22]	[1975.11,1980.09]		
EXRGER	1	31.24	29.69	20.08	31.58	57.26	1978.09	0.0516	0.726
		[0.86]	[0.30]	[3.60]	[1.60]	[29.26]	[1975.02,1980.02]		
EXRSW	1	41.39	33.29	26.17	35.26	34.76	1980.01	0.215	0.106
		[0.91]	[0.32]	[3.49]	[1.84]	[19.27]	[1975.02,1985.11]		
EXRJAN	3	38.05	30.18	28.10	37.70	34.20	1995.02	0.124	0.0990
		[0.89]	[0.31]	[1.74]	[3.31]	[14.43]	[1988.04,1999.06]		
EXRUK	3	28.60	26.90	30.73	17.97	−41.52	1993.04	0.000513	0.694
		[0.85]	[0.29]	[1.63]	[2.50]	[8.70]	[1992.07,1996.04]		
EXRCAN	12	11.40	12.14	11.48	14.38	25.26	1994.11	0.246	0.658
		[0.53]	[0.18]	[0.62]	[1.14]	[12.00]	[1986.11,1999.12]		
Producer prices									
PWFSA	9	6.23	4.12	4.41	3.16	−28.36	1992.01	0.156	0.000252
		[0.26]	[0.10]	[0.24]	[0.45]	[10.85]	[1989.07,1999.12]		
PWFCSA	9	7.25	5.25	5.63	4.05	−28.14	1991.08	0.106	0.00393
		[0.28]	[0.11]	[0.30]	[0.52]	[10.04]	[1989.03,1999.12]		
PWIMSA	4	7.90	4.05	3.15	4.47	42.04	1972.08	0.127	2.70E-009
		[0.27]	[0.11]	[0.43]	[0.29]	[21.41]	[1960.02,1974.12]		
PWCMSA	11	30.94	20.67	18.21	32.31	77.47	1993.12	0.000122	0.00122
		[0.60]	[0.24]	[1.28]	[2.78]	[19.71]	[1990.09,1995.10]		
PWFXSA	9	5.94	4.32	2.45	4.65	89.76	1973.01	0.0432	0.0190
		[0.29]	[0.12]	[0.68]	[0.29]	[53.83]	[1968.08,1973.12]		
PW160A	12	18.86	17.84	24.80	16.50	−33.45	1978.10	0.0101	0.710
		[0.68]	[0.23]	[2.19]	[0.96]	[7.03]	[1976.09,1981.08]		
PW150A	9	19.19	16.67	25.38	13.81	−45.57	1981.03	9.73E-007	0.380
		[0.69]	[0.24]	[1.80]	[1.03]	[5.60]	[1980.08,1983.11]		
PW561	5	66.28	52.75	24.95	96.98	288.71	1986.01	2.77E-025	0.162
		[1.05]	[0.42]	[4.15]	[5.23]	[67.93]	[1984.03,1986.02]		
PWCM	9	6.01	5.33	3.76	5.79	53.86	1968.09	0.0137	0.321
		[0.28]	[0.11]	[0.53]	[0.29]	[22.87]	[1962.06,1969.11]		

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Series	p	σ_{R}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	8.08	4.53	6.13	4.19	−31.67	1973.09	0.125	2.37E-006
		[0.30]	[0.13]	[0.69]	[0.32]	[9.24]	[1970.03,1984.12]		
PSM99Q	12	17.51	13.94	9.99	14.72	47.29	1966.07	0.0619	0.0313
		[0.43]	[0.17]	[1.51]	[0.67]	[23.30]	[1960.05,1969.03]		
PSCCOM	12	23.20	19.61	14.45	22.07	52.66	1972.11	0.00289	0.154
		[0.53]	[0.22]	[1.63]	[1.13]	[18.94]	[1966.03,1974.01]		
PSCFOO	12	35.86	29.41	20.88	33.48	60.37	1972.11	0.00218	0.116
		[0.68]	[0.27]	[2.65]	[1.83]	[22.19]	[1966.03,1973.07]		
PSCMAT	6	24.51	20.14	21.72	17.17	−20.97	1987.05	0.152	0.0640
		[0.52]	[0.21]	[1.08]	[1.49]	[7.90]	[1982.03,1999.12]		
PZFR	6	26.07	22.37	29.43	20.95	−28.81	1979.08	0.100	0.321
		[0.80]	[0.27]	[2.91]	[1.30]	[8.32]	[1976.11,1986.08]		
PCGOLD	7	86.24	47.46	72.58	38.61	−46.80	1983.06	9.96E-005	0.000161
		[1.33]	[0.46]	[6.27]	[3.73]	[6.89]	[1982.10,1987.03]		
Consumer prices									
PUNEW	9	3.18	1.94	2.18	1.50	−31.23	1987.01	0.0193	4.33E-006
		[0.18]	[0.07]	[0.12]	[0.17]	[8.62]	[1984.06,1996.01]		
PU81	12	4.90	4.08	5.95	3.09	−48.03	1979.09	5.29E-006	0.239
		[0.29]	[0.12]	[0.44]	[0.32]	[6.60]	[1979.04,1984.08]		
PUH	9	4.63	2.24	2.91	1.48	−49.12	1986.07	5.34E-006	5.48E-011
		[0.21]	[0.09]	[0.19]	[0.20]	[7.54]	[1986.03,1990.06]		
PU83	6	3.54	3.98	2.85	5.78	102.58	1986.01	1.52E-016	0.342
		[0.23]	[0.09]	[0.21]	[0.26]	[17.40]	[1984.01,1986.06]		
PU84	8	7.32	5.64	5.90	4.91	−16.80	1990.02	0.609	0.0183
		[0.28]	[0.11]	[0.31]	[0.51]	[9.72]	[1971.09,1999.12]		
PU85	6	2.67	2.16	3.03	1.16	−61.63	1983.04	6.27E-017	0.0936
		[0.19]	[0.07]	[0.14]	[0.15]	[5.41]	[1983.01,1985.01]		
PUC	9	4.20	3.12	2.67	3.31	23.98	1971.10	0.420	0.00789
		[0.21]	[0.09]	[0.28]	[0.18]	[14.62]	[1960.02,1976.05]		
PUCD	12	3.90	2.66	3.10	1.83	−40.98	1987.06	1.33E-005	0.000148
		[0.19]	[0.08]	[0.15]	[0.20]	[7.10]	[1986.06,1991.03]		
PUS	9	3.64	2.18	2.95	1.30	−56.03	1983.04	6.06E-012	3.13E-006
		[0.19]	[0.08]	[0.15]	[0.16]	[5.95]	[1983.01,1985.09]		
PUXF	9	3.42	2.18	2.52	1.55	−38.56	1987.04	5.01E-005	2.55E-006
		[0.17]	[0.07]	[0.12]	[0.16]	[7.10]	[1986.02,1991.06]		
PUXHS	12	3.41	2.52	2.85	1.93	−32.42	1987.02	0.00130	0.00290
		[0.18]	[0.07]	[0.14]	[0.18]	[7.20]	[1984.08,1992.07]		
PUXM	9	3.41	2.25	2.60	1.57	−39.43	1987.08	7.23E-005	3.90E-005
		[0.18]	[0.07]	[0.13]	[0.18]	[7.39]	[1986.06,1991.11]		
GMDC	9	2.29	1.54	1.29	1.65	28.24	1972.08	0.143	3.43E-005
		[0.14]	[0.06]	[0.12]	[0.08]	[13.55]	[1960.02,1977.12]		
GMDCD	12	3.77	2.64	2.98	2.29	−23.18	1981.05	0.0887	0.00101
		[0.20]	[0.08]	[0.18]	[0.18]	[7.66]	[1975.06,1996.01]		
GMDCN	9	4.02	3.01	2.34	3.31	41.41	1972.08	0.0343	0.0110
		[0.21]	[0.09]	[0.26]	[0.18]	[17.50]	[1963.01,1975.04]		
GMDCS	9	1.77	1.35	0.93	1.56	66.96	1972.12	5.01E-005	0.0121
		[0.14]	[0.06]	[0.11]	[0.07]	[20.70]	[1968.10,1973.12]		
Miscellaneous									
PMI	12	3363.29	2679.06	3062.22	2180.31	−28.80	1984.05	0.00362	0.0296
		[5.97]	[2.41]	[154.15]	[175.87]	[6.77]	[1981.07,1991.07]		
PMP	12	4271.12	3988.41	4512.71	3271.28	−27.51	1984.10	0.00817	0.547
		[7.30]	[2.94]	[228.17]	[266.85]	[6.96]	[1982.06,1993.05]		
PMNO	4	4692.02	4234.42	4676.54	3629.68	−22.39	1984.10	0.0905	0.375
		[7.64]	[3.08]	[251.85]	[294.55]	[7.56]	[1979.02,1998.05]		
PMDEL	12	5139.01	3292.67	4485.62	2188.92	−51.20	1979.08	1.33E-008	0.000265
		[7.57]	[3.05]	[262.39]	[252.39]	[6.31]	[1979.02,1983.03]		
PMNV	12	3864.08	3571.05	3957.76	2713.04	−31.45	1988.08	0.00285	0.472
		[6.80]	[2.74]	[180.82]	[269.34]	[7.49]	[1987.01,1994.08]		
PMEMP	12	3650.63	3005.81	3410.41	2175.64	−36.21	1988.01	0.000163	0.0640
		[6.28]	[2.53]	[155.50]	[222.74]	[7.15]	[1986.09,1992.06]		
PMCP	12	5205.18	4437.05	4960.95	3660.66	−26.21	1985.06	0.0351	0.172
		[7.98]	[3.22]	[269.47]	[328.03]	[7.73]	[1980.03,1995.02]		
HHSNTN	0	4935.93	3752.29	2037.91	5082.42	149.39	1978.02	2.04E-016	0.0177
		[7.52]	[3.03]	[262.38]	[231.11]	[34.05]	[1976.04,1978.05]		
F6EDM	12	77.73	69.69	101.84	59.22	−41.85	1973.05	6.90E-006	0.415
		[1.10]	[0.44]	[7.11]	[4.06]	[5.69]	[1972.09,1978.06]		
FTMC6	12	160.91	109.54	117.37	85.39	−27.25	1990.06	0.0885	0.000141
		[1.29]	[0.53]	[5.84]	[10.25]	[9.45]	[1987.11,1998.01]		
FTMM6	5	80.54	66.74	81.97	44.21	−46.06	1987.02	1.00E-006	0.139
		[1.07]	[0.43]	[4.30]	[5.23]	[6.98]	[1986.09,1990.06]		

Results for SupW tests for structural change in expansion volatility for individual series, when a linear AR model with constant parameters is used for the conditional mean. The columns headed σ_{R} and σ_0 contain estimates of the conditional standard deviation during recessions and expansions under the null hypothesis, respectively. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation during expansions before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated volatility break date is given in the column headed τ_v, with the 90% confidence interval given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional volatility. Figures in brackets below parameter estimates are standard errors.

Table A.6: Tests for structural change in recession volatility

Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production									
IP	3	7.54	11.91	13.13	7.28	−44.55	1982.05	0.123	1.41E-005
		[0.14]	[0.34]	[1.04]	[2.02]	[16.03]	[1979.01,1993.11]		
IPP	3	7.77	12.23	8.72	13.42	53.90	1970.07	0.192	1.97E-006
		[0.13]	[0.33]	[1.72]	[1.00]	[32.41]	[1960.02,1979.11]		
IPF	3	8.43	12.95	9.14	14.24	55.83	1970.07	0.193	9.48E-006
		[0.14]	[0.34]	[1.87]	[1.09]	[33.98]	[1960.02,1980.01]		
IPC	0	10.05	14.10	15.56	9.46	−39.19	1982.03	0.215	0.000900
		[0.15]	[0.37]	[1.29]	[2.30]	[15.65]	[1977.05,1997.07]		
IPCD	1	24.88	35.69	30.50	40.43	32.58	1974.10	0.747	0.00307
		[0.26]	[0.64]	[4.89]	[4.67]	[26.20]	[1960.02,1999.12]		
IPCN	2	8.58	9.23	10.56	7.15	−32.28	1980.05	0.351	0.459
		[0.13]	[0.32]	[1.04]	[1.31]	[14.07]	[1966.07,1999.12]		
IPE	5	11.85	18.34	11.35	20.91	84.19	1970.08	0.0196	4.53E-006
		[0.16]	[0.40]	[2.51]	[1.52]	[42.80]	[1963.10,1974.02]		
IPI	3	9.66	13.60	13.03	25.60	96.38	1990.12	0.178	0.000800
		[0.15]	[0.36]	[1.11]	[5.11]	[42.62]	[1989.10,1993.10]		
IPM	12	9.66	15.81	17.87	8.67	−51.46	1982.04	0.0258	3.02E-006
		[0.16]	[0.39]	[1.37]	[2.56]	[14.78]	[1979.10,1990.02]		
IPMD	12	13.56	24.06	27.15	14.22	−47.62	1982.03	0.0301	4.94E-008
		[0.19]	[0.47]	[2.03]	[3.62]	[13.89]	[1980.03,1991.03]		
IPMND	10	11.41	18.34	9.83	25.66	161.00	1974.09	5.56E-008	1.87E-006
		[0.16]	[0.41]	[1.91]	[1.77]	[53.81]	[1971.12,1975.12]		
IPMFG	3	8.17	13.49	15.01	8.24	−45.09	1982.04	0.0891	2.55E-006
		[0.14]	[0.36]	[1.18]	[2.20]	[15.29]	[1978.12,1992.12]		
IPD	3	10.67	18.34	20.16	12.52	−37.91	1982.03	0.251	1.32E-006
		[0.17]	[0.42]	[1.68]	[2.99]	[15.71]	[1976.06,1998.03]		
IPN	3	7.78	11.10	7.95	13.81	73.63	1974.09	0.0190	0.000659
		[0.13]	[0.33]	[1.31]	[1.22]	[32.47]	[1966.05,1980.03]		
IPMIN	1	12.99	15.00	10.24	18.22	77.96	1974.05	0.116	0.218
		[0.17]	[0.43]	[2.38]	[1.95]	[45.48]	[1961.07,1982.08]		
IPUT	10	17.84	16.13	4.93	19.09	287.54	1970.04	0.0615	0.435
		[0.20]	[0.50]	[4.41]	[2.27]	[350.14]	[1962.02,1972.06]		
IPX	3	587.46	931.17	1088.77	489.86	−55.01	1982.04	0.0135	6.17E-005
		[1.35]	[3.24]	[90.86]	[152.04]	[14.46]	[1980.05,1989.05]		
IPXMCA	3	666.78	1035.45	1169.47	570.86	−51.19	1982.04	0.0436	5.08E-005
		[1.29]	[3.21]	[94.91]	[176.72]	[15.62]	[1979.06,1991.02]		
IPXDCA	3	798.77	1342.12	1555.68	794.88	−48.90	1982.03	0.0552	2.65E-005
		[1.66]	[3.98]	[139.15]	[222.75]	[15.03]	[1978.11,1991.05]		
IPXNCA	3	647.10	914.77	1059.61	509.22	−51.94	1982.04	0.0306	0.00174
		[1.35]	[3.23]	[90.75]	[151.85]	[14.91]	[1979.07,1989.12]		
IPXMIN	1	1145.71	1543.09	961.41	1790.31	86.22	1974.05	0.120	0.0133
		[1.85]	[4.43]	[268.88]	[175.29]	[55.18]	[1968.02,1979.09]		
IPXUT	6	1656.80	1578.53	1940.93	1460.53	−24.75	1974.02	0.994	0.721
		[2.17]	[5.18]	[408.00]	[232.80]	[19.85]	[1968.02,1996.05]		
GMPYQ	9	4.15	6.17	7.03	4.81	−31.60	1980.05	0.331	0.000350
		[0.10]	[0.25]	[0.67]	[0.84]	[13.57]	[1970.02,1999.12]		
GMYXPQ	9	4.01	5.77	4.42	6.30	42.45	1970.09	0.452	0.000303
		[0.09]	[0.24]	[0.85]	[0.53]	[29.79]	[1960.02,1981.11]		
(Un)employment									
LHEL	12	2164.14	2478.86	1516.86	3128.20	106.23	1974.05	0.0122	0.213
		[2.16]	[5.35]	[364.74]	[299.67]	[53.38]	[1966.02,1977.12]		
LHELX	4	46.17	58.04	72.34	26.70	−63.09	1981.10	0.00262	0.0483
		[0.33]	[0.82]	[6.62]	[9.80]	[13.96]	[1979.12,1988.08]		
LHEM	8	3.22	3.91	5.62	3.60	−35.83	1965.12	0.387	0.0796
		[0.09]	[0.21]	[0.94]	[0.39]	[12.80]	[1960.02,1989.06]		
LHNAG	8	2.98	4.08	5.93	3.75	−36.66	1965.12	0.179	0.00169
		[0.08]	[0.20]	[0.84]	[0.35]	[10.70]	[1960.09,1978.04]		
LHUR	12	177.90	256.37	291.51	173.79	−40.38	1981.11	0.107	0.000415
		[0.64]	[1.59]	[24.44]	[37.46]	[13.79]	[1975.02,1993.06]		
LHU680	7	534.26	524.84	889.58	460.85	−48.20	1965.12	0.0644	0.872
		[1.04]	[2.58]	[139.36]	[58.37]	[10.44]	[1962.05,1975.07]		
LHU5	12	48.06	62.40	72.42	35.10	−51.54	1982.01	0.0370	0.0154
		[0.33]	[0.82]	[6.36]	[10.49]	[15.09]	[1977.08,1990.06]		
LHU14	5	58.73	76.07	94.33	45.40	−51.88	1980.06	0.00136	0.00702
		[0.34]	[0.85]	[7.41]	[9.60]	[10.86]	[1977.11,1986.10]		
LHU15	4	57.54	75.42	94.69	46.86	−50.51	1980.04	0.00120	0.00471
		[0.34]	[0.85]	[7.47]	[9.09]	[10.36]	[1976.10,1985.11]		
LHU26	4	91.24	102.70	125.94	68.27	−45.79	1980.04	0.0211	0.229
		[0.42]	[1.04]	[11.31]	[13.76]	[11.96]	[1973.11,1988.02]		
LHU27	7	76.37	90.05	108.07	55.57	−48.58	1981.08	0.0433	0.132
		[0.41]	[1.01]	[10.30]	[14.24]	[14.06]	[1978.04,1993.06]		
LHCH	12	233.16	194.96	211.61	100.10	−52.70	1982.09	0.575	0.134
		[0.74]	[1.69]	[25.29]	[60.37]	[29.08]	[1969.12,1993.12]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	1.71	2.78	3.08	1.43	−53.49	1982.07	0.0585	7.41E-006
		[0.07]	[0.16]	[0.24]	[0.52]	[17.25]	[1981.01,1991.05]		
LP	3	1.96	3.21	3.70	2.42	−34.68	1980.05	0.211	1.98E-005
		[0.07]	[0.18]	[0.35]	[0.43]	[13.20]	[1977.01,1999.12]		
LPGD	3	3.45	6.10	6.53	3.36	−48.52	1982.10	0.336	2.92E-006
		[0.10]	[0.25]	[0.56]	[1.43]	[22.30]	[1981.04,1996.11]		
LPMI	12	8.12	11.11	7.72	14.40	86.56	1974.11	0.0721	0.0214
		[0.15]	[0.38]	[1.70]	[1.68]	[46.58]	[1962.02,1980.07]		
LPCC	5	9.93	14.41	15.94	9.90	−37.89	1982.02	0.540	0.00577
		[0.17]	[0.43]	[1.74]	[2.98]	[19.88]	[1978.06,1999.12]		
LPEM	3	2.95	5.94	3.33	6.57	97.26	1970.03	0.163	1.38E-007
		[0.10]	[0.25]	[1.19]	[0.58]	[72.62]	[1962.11,1980.01]		
LPED	5	4.03	8.46	9.04	4.72	−47.79	1982.10	0.467	2.62E-007
		[0.13]	[0.31]	[0.85]	[2.16]	[24.46]	[1981.01,1999.12]		
LPEN	2	2.47	4.53	4.93	1.61	−67.25	1982.11	0.0214	1.24E-008
		[0.08]	[0.20]	[0.35]	[0.96]	[19.67]	[1982.01,1987.12]		
LPSP	6	1.36	2.16	2.45	1.57	−36.04	1981.09	0.124	5.63E-006
		[0.06]	[0.14]	[0.20]	[0.28]	[12.61]	[1976.10,1996.11]		
LPTU	12	4.47	5.85	6.84	4.18	−38.97	1980.06	0.434	0.0600
		[0.12]	[0.29]	[0.85]	[1.11]	[17.89]	[1964.08,1999.12]		
LPT	12	2.24	3.32	3.92	2.38	−39.26	1980.05	0.0878	0.000299
		[0.07]	[0.18]	[0.35]	[0.44]	[12.57]	[1977.04,1997.02]		
LPFR	10	1.38	1.44	1.77	1.06	−40.16	1975.02	0.128	0.728
		[0.05]	[0.13]	[0.19]	[0.20]	[13.18]	[1964.11,1989.02]		
LPS	10	1.81	2.31	2.92	2.07	−29.03	1970.09	0.450	0.0232
		[0.06]	[0.16]	[0.38]	[0.24]	[12.39]	[1960.02,1987.09]		
LPGOV	12	2.17	4.12	3.22	5.31	64.57	1980.02	0.0359	1.06E-007
		[0.08]	[0.20]	[0.45]	[0.51]	[27.87]	[1972.09,1989.01]		
LW	4	114.72	163.11	201.74	72.22	−64.20	1982.02	0.00170	0.00305
		[0.56]	[1.42]	[17.80]	[27.30]	[13.89]	[1979.11,1987.02]		
LPHRM	12	219.10	343.37	413.38	137.44	−66.75	1982.02	0.00161	0.000166
		[0.78]	[1.93]	[34.85]	[59.76]	[14.73]	[1981.02,1988.03]		
LPMOSA	12	130.33	182.66	210.38	77.75	−63.04	1982.05	0.0168	0.00320
		[0.57]	[1.42]	[18.30]	[35.61]	[17.23]	[1979.12,1988.12]		
Wages and salaries									
LEH	12	2.27	3.28	3.74	1.75	−53.22	1982.06	0.0748	0.00191
		[0.08]	[0.20]	[0.34]	[0.63]	[17.36]	[1979.11,1992.04]		
LEHCC	11	5.49	6.77	4.50	8.51	89.03	1974.07	0.0450	0.0771
		[0.12]	[0.29]	[1.01]	[0.89]	[46.96]	[1967.12,1986.04]		
LEHM	11	3.15	4.52	5.12	2.73	−46.69	1982.02	0.114	0.00166
		[0.09]	[0.22]	[0.46]	[0.79]	[16.21]	[1978.03,1994.09]		
LEHTU	11	4.22	4.50	5.02	2.05	−59.20	1982.09	0.334	0.632
		[0.11]	[0.27]	[0.60]	[1.30]	[26.44]	[1978.05,1996.07]		
LEHTT	9	2.68	3.48	4.50	1.59	−64.54	1981.11	0.000251	0.0202
		[0.08]	[0.21]	[0.39]	[0.53]	[12.09]	[1980.04,1986.10]		
LEHFR	12	4.53	5.19	5.60	3.01	−46.31	1982.10	0.503	0.248
		[0.10]	[0.26]	[0.57]	[1.32]	[24.18]	[1975.07,1997.07]		
LEHS	12	3.10	3.85	4.51	2.41	−46.67	1982.01	0.112	0.0658
		[0.09]	[0.22]	[0.45]	[0.67]	[15.73]	[1978.05,1995.10]		
Construction									
HSFR	12	81.16	113.37	92.53	128.34	38.70	1974.06	0.425	0.00121
		[0.43]	[1.06]	[14.23]	[12.06]	[24.99]	[1960.02,1994.06]		
HSNE	4	173.88	257.83	333.56	239.59	−28.17	1970.03	0.447	8.21E-005
		[0.63]	[1.55]	[44.71]	[21.94]	[11.66]	[1960.02,1989.09]		
HSMW	3	159.64	189.37	174.84	499.31	185.59	1990.12	0.00463	0.134
		[0.60]	[1.50]	[18.55]	[85.68]	[57.62]	[1990.04,1992.02]		
HSSOU	12	94.73	147.56	117.06	169.47	44.78	1974.06	0.154	3.26E-006
		[0.46]	[1.13]	[16.18]	[13.71]	[23.19]	[1961.07,1985.10]		
HSWST	2	128.43	175.06	188.96	142.41	−24.63	1981.11	0.584	0.000621
		[0.50]	[1.24]	[15.04]	[23.06]	[13.60]	[1963.04,1999.12]		
HSBR	2	64.00	98.71	58.94	122.39	107.65	1974.03	0.00161	3.82E-005
		[0.39]	[0.98]	[12.59]	[9.71]	[47.32]	[1969.01,1977.12]		
HSBNE	4	120.56	151.96	168.26	100.76	−40.11	1982.05	0.423	0.0513
		[0.53]	[1.41]	[17.25]	[30.58]	[19.18]	[1972.12,1999.12]		
HSBMW	12	103.92	156.55	175.86	63.88	−63.67	1982.09	0.0463	0.000631
		[0.52]	[1.38]	[15.69]	[34.38]	[19.82]	[1978.04,1988.02]		
HSBSOU	12	76.96	114.12	78.75	127.60	62.04	1974.03	0.228	0.000306
		[0.42]	[1.12]	[18.24]	[11.26]	[40.16]	[1961.02,1982.11]		
HSBWST	1	94.74	145.21	19.18	154.55	705.66	1970.03	0.0572	8.29E-005
		[0.47]	[1.26]	[45.30]	[12.33]	[1903.50]	[1967.04,1971.05]		
HNS	2	78.50	125.37	84.63	159.54	88.52	1975.02	0.000413	7.10E-007
		[0.42]	[1.08]	[12.76]	[11.69]	[31.61]	[1971.02,1978.05]		
HNSNE	12	182.54	236.70	146.90	288.01	96.06	1980.03	0.0473	0.0312
		[0.76]	[1.87]	[38.10]	[28.80]	[54.50]	[1974.02,1983.04]		
HNSMW	11	126.81	189.61	176.88	363.68	105.61	1990.12	0.0943	0.00104
		[0.66]	[1.64]	[18.17]	[67.17]	[43.46]	[1989.05,1992.12]		

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Series	p	σ_E	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	99.47	159.40	125.19	177.10	41.47	1980.02	0.442	2.13E-005
		[0.57]	[1.40]	[22.25]	[16.00]	[28.21]	[1974.02,1993.12]		
HNSWST	12	124.60	188.94	232.16	126.51	−45.50	1982.01	0.0317	0.000460
		[0.65]	[1.60]	[21.81]	[26.21]	[12.40]	[1977.08,1988.05]		
HNR	4	515.91	1082.15	702.62	1400.47	99.32	1975.02	1.59E-006	8.16E-016
		[1.15]	[2.95]	[93.78]	[85.88]	[29.28]	[1972.04,1976.08]		
HMOB	3	47.63	90.82	110.00	54.15	−50.78	1981.08	0.000108	7.21E-012
		[0.34]	[0.85]	[7.06]	[9.76]	[9.42]	[1980.04,1986.09]		
CONTC	1	16.94	27.29	30.86	22.39	−27.44	1980.07	0.351	3.03E-006
		[0.21]	[0.52]	[2.69]	[3.16]	[12.04]	[1971.10,1999.12]		
CONPC	6	17.75	24.17	28.34	18.82	−33.59	1980.06	0.251	0.00518
		[0.21]	[0.53]	[2.83]	[3.20]	[13.09]	[1973.04,1999.12]		
CONQC	2	34.03	44.99	42.90	82.65	92.68	1990.12	0.274	0.0128
		[0.29]	[0.74]	[4.18]	[17.74]	[45.42]	[1988.12,1994.04]		
CONDO9	9	90.06	125.60	53.99	138.16	155.90	1965.12	0.0395	0.00101
		[0.45]	[1.11]	[25.70]	[10.77]	[123.45]	[1960.10,1967.09]		
Trade									
MSMTQ	12	11.23	14.87	12.06	17.01	41.06	1974.07	0.272	0.00279
		[0.15]	[0.37]	[1.71]	[1.49]	[23.49]	[1960.02,1988.10]		
MSMQ	12	15.16	19.36	15.77	22.65	43.56	1974.10	0.276	0.0139
		[0.18]	[0.44]	[2.28]	[2.18]	[24.94]	[1960.02,1992.01]		
MSDQ	12	21.81	27.71	21.78	33.13	52.13	1974.10	0.160	0.0187
		[0.21]	[0.53]	[3.34]	[3.20]	[27.60]	[1964.05,1991.03]		
MSNQ	3	12.45	16.47	11.01	18.63	69.13	1970.09	0.0883	0.00346
		[0.16]	[0.39]	[2.38]	[1.50]	[38.94]	[1961.08,1978.02]		
WTQ	3	15.51	18.36	10.72	21.84	103.77	1970.11	0.0372	0.123
		[0.18]	[0.46]	[3.03]	[2.05]	[60.67]	[1963.07,1977.11]		
WTDQ	5	17.40	22.19	17.49	25.36	44.98	1974.05	0.319	0.0163
		[0.19]	[0.48]	[2.90]	[2.38]	[27.64]	[1960.02,1988.04]		
WTNQ	4	20.85	24.94	14.78	28.96	95.94	1970.09	0.0529	0.0862
		[0.21]	[0.52]	[4.12]	[2.59]	[57.37]	[1963.05,1978.05]		
RTQ	11	12.25	18.21	10.80	21.37	97.92	1970.10	0.0178	0.000199
		[0.17]	[0.43]	[2.69]	[1.75]	[51.90]	[1964.07,1976.05]		
RTDQ	2	27.02	44.08	33.65	52.54	56.14	1974.08	0.106	1.06E-005
		[0.27]	[0.66]	[5.33]	[4.80]	[28.56]	[1963.12,1986.03]		
RTNQ	12	8.58	11.39	12.89	9.16	−28.95	1980.04	0.337	0.00349
		[0.13]	[0.33]	[1.15]	[1.40]	[12.55]	[1972.01,1999.12]		
Inventories									
IVMTQ	3	3.64	5.92	4.86	6.73	38.37	1974.07	0.144	1.29E-008
		[0.09]	[0.21]	[0.56]	[0.49]	[18.91]	[1965.06,1991.05]		
IVMFGQ	12	4.00	5.06	6.36	4.68	−26.40	1970.05	0.577	0.0180
		[0.09]	[0.22]	[0.87]	[0.47]	[12.46]	[1960.02,1994.12]		
IVMFDQ	12	5.04	6.41	8.20	5.71	−30.43	1970.09	0.354	0.0223
		[0.11]	[0.26]	[1.04]	[0.65]	[11.88]	[1960.10,1996.11]		
IVMFNQ	2	5.21	5.96	5.55	7.27	31.03	1982.03	0.809	0.191
		[0.10]	[0.26]	[0.61]	[1.09]	[24.32]	[1960.02,1999.12]		
IVWRQ	12	7.42	12.04	18.21	10.96	−39.83	1965.12	0.0250	1.83E-007
		[0.13]	[0.32]	[2.10]	[0.88]	[8.47]	[1962.04,1970.11]		
IVRRQ	12	8.10	11.40	11.22	17.49	55.94	1991.01	0.914	0.000514
		[0.13]	[0.33]	[0.89]	[5.09]	[47.07]	[1988.02,1998.06]		
IVSRQ	12	15.84	21.47	15.35	26.44	72.28	1974.08	0.0146	0.00166
		[0.18]	[0.45]	[2.46]	[2.21]	[31.10]	[1966.03,1978.12]		
IVSRMQ	12	23.76	29.87	20.73	33.49	61.52	1970.09	0.258	0.0298
		[0.23]	[0.56]	[4.88]	[3.07]	[40.78]	[1960.02,1980.07]		
IVSRWQ	2	19.94	24.94	18.40	30.57	66.08	1974.09	0.0408	0.0226
		[0.20]	[0.50]	[2.96]	[2.75]	[30.62]	[1965.03,1981.09]		
IVSRRQ	5	19.21	25.91	15.24	33.58	120.42	1974.06	0.00216	0.00812
		[0.22]	[0.54]	[3.58]	[3.03]	[55.47]	[1968.04,1977.07]		
Orders									
MOCMQ	12	26.49	36.13	24.39	43.58	78.70	1974.04	0.0165	0.00171
		[0.24]	[0.59]	[4.53]	[3.60]	[36.31]	[1969.01,1983.03]		
MDOQ	6	34.42	51.08	35.91	63.39	76.54	1974.08	0.00239	1.51E-005
		[0.27]	[0.66]	[5.26]	[4.73]	[29.02]	[1969.02,1979.02]		
MSONDQ	9	72.91	87.76	53.73	109.33	103.47	1974.04	0.00869	0.0776
		[0.39]	[0.98]	[12.36]	[9.85]	[50.28]	[1969.03,1981.09]		
MO	6	20.97	30.04	23.23	34.93	50.39	1974.06	0.0742	5.84E-005
		[0.20]	[0.51]	[3.21]	[2.72]	[23.85]	[1963.07,1982.04]		
MOWU	6	30.03	42.45	30.51	51.56	69.01	1974.07	0.0107	0.000166
		[0.25]	[0.61]	[4.59]	[4.01]	[28.62]	[1967.05,1979.09]		
MDO	6	34.23	50.45	37.50	60.34	60.89	1974.07	0.0203	1.92E-005
		[0.26]	[0.66]	[5.29]	[4.62]	[25.84]	[1966.10,1981.01]		
MDUWU	6	36.41	51.27	36.77	62.34	69.55	1974.07	0.0111	0.000216
		[0.27]	[0.67]	[5.59]	[4.89]	[29.02]	[1967.07,1980.03]		
MNO	12	12.52	18.68	13.24	20.99	58.61	1970.10	0.135	5.24E-005
		[0.17]	[0.42]	[2.57]	[1.68]	[33.30]	[1960.02,1977.06]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	20.25	23.80	30.69	22.45	−26.83	1970.01	0.663	0.0875
		[0.20]	[0.49]	[4.76]	[2.11]	[13.26]	[1960.02,1986.01]		
MU	3	7.71	9.02	7.37	10.20	38.38	1974.06	0.513	0.121
		[0.12]	[0.31]	[1.21]	[1.02]	[26.55]	[1960.02,1999.12]		
MDU	3	8.04	9.30	7.85	10.35	31.71	1974.06	0.717	0.152
		[0.13]	[0.32]	[1.26]	[1.07]	[25.10]	[1960.02,1999.12]		
MNU	12	16.98	21.75	22.75	5.98	−73.72	1990.11	0.245	0.0131
		[0.19]	[0.47]	[1.83]	[7.26]	[31.96]	[1988.06,1994.10]		
MPCON	5	75.39	87.73	40.05	96.09	139.94	1965.12	0.0757	0.115
		[0.38]	[0.94]	[18.64]	[7.81]	[113.34]	[1960.02,1967.11]		
MPCONQ	9	75.40	88.33	38.48	97.08	152.31	1965.12	0.0387	0.0850
		[0.37]	[0.92]	[17.85]	[7.48]	[118.65]	[1960.11,1967.11]		
Consumption									
GMCQ	8	5.96	8.41	7.00	9.49	35.66	1974.07	0.503	0.000951
		[0.12]	[0.29]	[1.04]	[0.91]	[24.02]	[1960.02,1999.08]		
GMCDQ	8	28.07	42.32	31.97	50.23	57.13	1974.07	0.112	0.000152
		[0.26]	[0.65]	[5.27]	[4.60]	[29.63]	[1961.02,1982.03]		
GMCNQ	12	7.25	8.39	6.60	9.21	39.61	1970.11	0.696	0.180
		[0.13]	[0.31]	[1.41]	[0.95]	[33.07]	[1960.02,1999.12]		
GMCSQ	10	3.66	4.35	3.43	5.14	49.64	1974.09	0.300	0.109
		[0.09]	[0.22]	[0.59]	[0.54]	[30.08]	[1960.02,1983.11]		
GMCANQ	5	74.17	118.96	79.45	134.59	69.41	1970.09	0.138	2.88E-005
		[0.44]	[1.10]	[18.53]	[11.66]	[42.14]	[1960.02,1974.08]		
Money and credit									
FM1	9	4.39	5.13	3.62	6.98	92.61	1975.03	0.0100	0.157
		[0.10]	[0.24]	[0.65]	[0.72]	[39.65]	[1967.03,1979.04]		
FM2	12	2.31	2.83	2.97	1.04	−64.96	1990.10	0.469	0.0796
		[0.07]	[0.18]	[0.28]	[1.00]	[33.89]	[1986.02,1997.09]		
FM3	8	2.50	3.04	4.14	2.60	−37.28	1970.09	0.107	0.0626
		[0.07]	[0.18]	[0.50]	[0.31]	[10.66]	[1962.10,1982.03]		
FML	12	3.42	3.17	3.46	2.68	−22.67	1980.06	0.910	0.451
		[0.08]	[0.19]	[0.39]	[0.51]	[17.12]	[1960.02,1998.09]		
FM2DQ	10	2.86	3.97	2.82	4.19	48.88	1970.01	0.652	0.00132
		[0.08]	[0.20]	[0.79]	[0.35]	[43.46]	[1960.02,1977.09]		
FMFBA	11	2.59	2.68	2.53	5.85	131.35	1990.12	0.137	0.761
		[0.07]	[0.18]	[0.28]	[1.29]	[56.93]	[1988.08,1992.12]		
FMBASE	12	4.01	4.09	2.87	4.51	57.47	1970.07	0.581	0.852
		[0.09]	[0.23]	[0.84]	[0.49]	[49.18]	[1960.02,1986.07]		
FMRRA	11	10.85	10.50	9.85	13.47	36.79	1982.07	0.823	0.748
		[0.14]	[0.35]	[1.13]	[2.41]	[29.09]	[1960.02,1999.12]		
FMRNBA	1	17.05	23.17	25.43	8.57	−66.30	1982.10	0.158	0.0159
		[0.22]	[0.54]	[2.51]	[6.38]	[25.32]	[1974.07,1986.12]		
FMRNBC	1	14.88	20.75	23.86	15.84	−33.61	1980.05	0.296	0.00325
		[0.20]	[0.47]	[2.34]	[2.93]	[13.91]	[1965.08,1995.04]		
FCLS	2	3.98	3.94	5.14	3.12	−39.29	1980.05	0.365	0.954
		[0.11]	[0.27]	[0.77]	[0.64]	[15.43]	[1974.02,1989.08]		
FCSGV	3	9.51	13.69	16.69	7.88	−52.77	1982.04	0.0177	0.00267
		[0.18]	[0.44]	[1.56]	[2.17]	[13.73]	[1979.01,1988.03]		
FCLRE	3	2.94	2.79	3.45	2.29	−33.42	1980.06	0.843	0.744
		[0.10]	[0.25]	[0.65]	[0.57]	[20.78]	[1974.02,1997.03]		
FCLIN	3	3.92	4.95	4.33	13.40	209.46	1990.12	0.000628	0.0876
		[0.12]	[0.29]	[0.56]	[2.07]	[62.37]	[1989.08,1991.06]		
FCLNBF	1	19.54	19.70	26.19	13.22	−49.53	1981.09	0.0861	0.951
		[0.29]	[0.60]	[3.37]	[3.37]	[14.41]	[1975.07,1985.08]		
FCLNQ	7	8.55	11.12	7.42	12.58	69.63	1970.09	0.128	0.00938
		[0.14]	[0.33]	[1.71]	[1.08]	[41.75]	[1960.02,1975.08]		
FCLBMC	8	30560.15	27117.87	10906.83	41077.38	276.62	1974.09	0.0142	0.480
		[9.48]	[23.51]	[6571.84]	[6098.41]	[233.72]	[1964.12,1977.02]		
CCI30M	12	86.07	80.32	42.62	97.53	128.87	1970.11	0.192	0.627
		[0.50]	[1.15]	[19.25]	[13.00]	[107.77]	[1960.02,1973.02]		
CCINT	8	2299715.47	2878813.13	2100066.04	5993801.49	185.41	1990.09	0.00446	0.210
		[107.12]	[280.71]	[469034.13]	[938068.27]	[77.84]	[1988.03,1992.03]		
CCINV	7	1168472.16	1314651.20	976999.25	3002910.98	207.36	1990.10	0.00475	0.516
		[74.76]	[195.90]	[223875.94]	[500601.82]	[87.10]	[1988.11,1992.04]		
Stock prices									
FSNCOM	2	33.63	60.41	37.95	65.82	73.42	1970.03	0.0673	2.87E-010
		[0.28]	[0.69]	[8.87]	[4.35]	[42.12]	[1963.05,1974.11]		
FSNIN	2	35.16	67.27	68.33	8.03	−88.24	1991.02	0.551	8.56E-011
		[0.32]	[0.78]	[4.60]	[34.42]	[50.38]	[1990.03,1992.12]		
FSNTR	2	51.07	86.94	90.26	63.18	−30.00	1990.08	0.702	1.22E-008
		[0.36]	[0.88]	[6.20]	[16.57]	[18.98]	[1982.03,1999.12]		
FSNUT	5	32.30	52.42	62.92	39.91	−36.58	1980.05	0.0219	2.37E-007
		[0.28]	[0.69]	[4.82]	[5.26]	[9.67]	[1976.03,1989.02]		
FSNFI	2	46.46	82.04	75.30	110.25	46.42	1982.08	0.145	3.42E-009
		[0.35]	[0.86]	[6.15]	[12.58]	[20.55]	[1977.05,1990.04]		

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Series	p	σ_E	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	33.26	58.24	46.40	66.75	43.86	1974.06	0.120	3.16E-009
		[0.28]	[0.69]	[6.01]	[5.09]	[21.63]	[1962.08,1984.12]		
FSPIN	2	33.99	59.11	47.12	67.71	43.69	1974.06	0.127	5.58E-009
		[0.28]	[0.70]	[6.14]	[5.20]	[21.74]	[1962.06,1985.03]		
FSPCAP	1	40.81	69.06	38.90	77.02	98.02	1970.04	0.0139	1.79E-008
		[0.30]	[0.75]	[10.06]	[5.17]	[52.89]	[1965.04,1973.10]		
FSPTR	2	50.28	84.07	87.92	62.64	−28.75	1990.08	0.773	7.51E-007
		[0.38]	[0.97]	[6.89]	[16.26]	[19.32]	[1980.08,1999.12]		
FSPUT	5	33.61	54.09	62.61	41.45	−33.79	1980.04	0.0533	1.29E-007
		[0.27]	[0.66]	[4.62]	[5.62]	[10.21]	[1974.09,1992.03]		
FSPFI	2	51.45	89.46	77.05	128.95	67.36	1982.08	0.00874	3.32E-008
		[0.38]	[0.97]	[7.22]	[12.88]	[22.92]	[1979.01,1985.09]		
Dividends and volume									
FSDXP	1	35.82	62.39	44.56	70.54	58.31	1970.11	0.0761	1.88E-008
		[0.30]	[0.73]	[7.77]	[5.25]	[30.00]	[1960.11,1976.12]		
FSPXE	4	41.30	64.76	44.11	69.27	57.04	1970.02	0.382	7.94E-006
		[0.31]	[0.77]	[11.46]	[5.36]	[42.58]	[1960.02,1978.11]		
FSNVV3	12	34.34	44.29	62.22	23.98	−61.47	1982.04	0.0101	0.0965
		[0.37]	[1.00]	[7.54]	[8.03]	[13.73]	[1980.12,1990.04]		
Interest rates									
FYFF	12	353.56	1000.11	575.33	1286.83	123.67	1974.05	0.000131	1.10E-014
		[1.24]	[3.08]	[119.63]	[98.29]	[49.55]	[1969.03,1975.06]		
FYCP	12	381.87	877.81	316.12	1171.42	270.56	1974.01	1.37E-008	9.76E-012
		[1.20]	[2.87]	[109.95]	[79.49]	[131.31]	[1971.05,1974.05]		
FYGM3	12	327.73	845.16	397.55	1049.50	163.99	1970.11	3.55E-006	1.90E-016
		[1.08]	[2.67]	[101.21]	[68.38]	[69.37]	[1967.06,1971.04]		
FYGM6	12	323.36	820.91	425.76	989.06	132.30	1970.10	2.61E-005	6.21E-018
		[1.03]	[2.56]	[95.48]	[62.28]	[54.11]	[1967.01,1971.06]		
FYGT1	12	361.00	805.75	576.35	1088.67	88.89	1975.03	2.21E-005	3.98E-015
		[1.02]	[2.53]	[68.90]	[76.52]	[26.19]	[1970.10,1976.07]		
FYGT5	6	308.74	525.05	320.77	748.48	133.34	1975.01	9.05E-007	3.64E-007
		[0.89]	[2.19]	[52.86]	[55.29]	[42.14]	[1971.08,1976.04]		
FYGT10	12	266.46	437.31	223.62	685.47	206.53	1975.02	4.84E-011	2.94E-006
		[0.82]	[2.03]	[43.95]	[47.37]	[63.86]	[1972.11,1975.10]		
FYAAAC	12	188.50	326.82	149.55	545.45	264.72	1975.03	4.85E-012	4.17E-006
		[0.74]	[1.85]	[35.50]	[39.42]	[90.49]	[1973.02,1975.09]		
FYBAAC	4	173.12	278.84	134.22	457.20	240.64	1975.03	4.59E-010	6.98E-005
		[0.70]	[1.74]	[31.67]	[35.17]	[84.54]	[1972.09,1975.10]		
FWAFIT	3	277.74	474.54	639.01	277.17	−56.62	1981.11	0.000593	5.21E-005
		[1.21]	[2.58]	[57.51]	[63.00]	[10.60]	[1980.11,1985.11]		
FYFHA	4	265.82	424.23	183.25	721.43	293.69	1975.03	1.43E-009	0.000473
		[0.91]	[2.27]	[54.11]	[60.09]	[120.79]	[1972.07,1975.10]		
Exchange rates									
EXRUS	2	18.51	23.75	21.85	82.67	278.38	1991.02	0.00372	0.0853
		[0.25]	[0.71]	[2.86]	[15.91]	[88.03]	[1990.10,1991.09]		
EXRGER	1	29.69	31.24	27.78	138.67	399.24	1991.02	5.22E-005	0.726
		[0.30]	[0.86]	[4.09]	[22.76]	[110.05]	[1990.11,1991.06]		
EXRSW	1	33.29	41.39	38.12	142.98	275.12	1991.02	0.00184	0.106
		[0.32]	[0.91]	[4.69]	[26.10]	[82.58]	[1990.10,1991.08]		
EXRJAN	3	30.18	38.05	36.41	88.82	143.95	1991.02	0.352	0.0990
		[0.31]	[0.89]	[4.55]	[25.31]	[75.88]	[1989.08,1992.07]		
EXRUK	3	26.90	28.60	25.77	116.12	350.56	1991.02	0.00175	0.694
		[0.29]	[0.85]	[4.03]	[22.42]	[111.89]	[1990.09,1991.07]		
EXRCAN	12	12.14	11.40	12.60	6.20	−50.75	1990.09	0.664	0.658
		[0.18]	[0.53]	[1.75]	[3.64]	[29.71]	[1979.05,1999.12]		
Producer prices									
PWFSA	9	4.12	6.23	5.95	10.55	77.19	1990.11	0.346	0.000252
		[0.10]	[0.26]	[0.55]	[2.17]	[40.01]	[1989.06,1996.02]		
PWFCSA	9	5.25	7.25	6.75	10.95	62.33	1982.11	0.302	0.00393
		[0.11]	[0.28]	[0.68]	[1.86]	[32.05]	[1977.05,1991.06]		
PWIMSA	4	4.05	7.90	3.76	9.79	160.72	1970.11	5.72E-005	2.70E-009
		[0.11]	[0.27]	[1.05]	[0.71]	[75.09]	[1966.09,1971.05]		
PWCMSA	11	20.67	30.94	23.63	84.82	258.88	1982.11	7.75E-011	0.00122
		[0.24]	[0.60]	[2.99]	[8.11]	[56.85]	[1982.03,1983.08]		
PWFXSA	9	4.32	5.94	5.16	10.74	108.12	1982.11	0.0335	0.0190
		[0.12]	[0.29]	[0.68]	[1.68]	[42.53]	[1980.03,1986.09]		
PW160A	12	17.84	18.86	33.49	12.21	−63.55	1981.09	0.00219	0.710
		[0.23]	[0.68]	[4.51]	[3.04]	[10.33]	[1979.08,1986.01]		
PW150A	9	16.67	19.19	24.55	13.13	−46.52	1982.04	0.308	0.380
		[0.24]	[0.69]	[3.70]	[3.94]	[17.94]	[1978.02,1999.12]		
PW561	5	52.75	66.28	32.50	315.35	870.19	1982.11	5.92E-029	0.162
		[0.42]	[1.05]	[8.47]	[23.00]	[262.51]	[1982.04,1982.12]		
PWCM	9	5.33	6.01	3.59	7.18	99.92	1973.12	0.0937	0.321
		[0.11]	[0.28]	[1.10]	[0.77]	[64.55]	[1965.10,1985.07]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	4.53	8.08	6.71	16.50	146.11	1982.11	1.41E-005	2.37E-006
		[0.13]	[0.30]	[0.72]	[1.79]	[37.71]	[1982.02,1984.08]		
PSM99Q	12	13.94	17.51	8.84	21.47	142.93	1970.11	0.00253	0.0313
		[0.17]	[0.43]	[2.71]	[1.83]	[77.18]	[1965.04,1973.03]		
PSCCOM	12	19.61	23.20	9.38	29.51	214.44	1970.11	0.00122	0.154
		[0.22]	[0.53]	[4.11]	[2.77]	[140.68]	[1965.04,1971.11]		
PSCFOO	12	29.41	35.86	18.22	45.07	147.41	1974.01	0.0128	0.116
		[0.27]	[0.68]	[6.40]	[4.63]	[90.60]	[1968.12,1981.09]		
PSCMAT	6	20.14	24.51	10.48	30.91	195.01	1970.11	0.000275	0.0640
		[0.21]	[0.52]	[3.83]	[2.59]	[110.52]	[1966.08,1972.10]		
PZFR	6	22.37	26.07	48.69	19.18	−60.60	1981.08	0.00621	0.321
		[0.27]	[0.80]	[7.14]	[3.94]	[9.94]	[1979.11,1986.04]		
PCGOLD	7	47.46	86.24	106.51	45.70	−57.09	1982.09	0.0425	0.000161
		[0.46]	[1.33]	[11.73]	[16.58]	[16.27]	[1980.12,1993.07]		
Consumer prices									
PUNEW	9	1.94	3.18	2.46	4.40	78.71	1980.06	0.00338	4.33E-006
		[0.07]	[0.18]	[0.31]	[0.40]	[28.01]	[1976.03,1986.04]		
PU81	12	4.08	4.90	6.69	3.86	−42.35	1974.09	0.291	0.239
		[0.12]	[0.29]	[1.05]	[0.80]	[15.00]	[1972.03,1999.12]		
PUH	9	2.24	4.63	3.15	6.39	102.92	1980.05	2.43E-005	5.48E-011
		[0.09]	[0.21]	[0.44]	[0.48]	[32.32]	[1977.04,1982.03]		
PU83	6	3.98	3.54	2.20	4.11	86.69	1970.10	0.367	0.342
		[0.09]	[0.23]	[0.79]	[0.52]	[71.33]	[1960.02,1976.07]		
PU84	8	5.64	7.32	5.77	11.53	99.86	1982.01	0.00198	0.0183
		[0.11]	[0.28]	[0.76]	[1.25]	[34.08]	[1976.06,1984.08]		
PU85	6	2.16	2.67	3.28	1.58	−51.76	1980.07	0.0531	0.0936
		[0.07]	[0.19]	[0.35]	[0.47]	[15.14]	[1978.02,1994.10]		
PUC	9	3.12	4.20	3.38	6.60	95.13	1982.02	0.00346	0.00789
		[0.09]	[0.21]	[0.43]	[0.73]	[32.90]	[1977.06,1985.11]		
PUCD	12	2.66	3.90	3.03	4.42	45.90	1974.03	0.248	0.000148
		[0.08]	[0.19]	[0.49]	[0.38]	[26.86]	[1960.11,1990.06]		
PUS	9	2.18	3.64	2.56	4.90	91.67	1975.02	0.00108	3.13E-006
		[0.08]	[0.19]	[0.39]	[0.42]	[33.51]	[1969.03,1977.11]		
PUXF	9	2.18	3.42	2.52	4.92	95.54	1980.06	3.54E-005	2.55E-006
		[0.07]	[0.17]	[0.30]	[0.39]	[28.07]	[1976.06,1982.09]		
PUXHS	12	2.52	3.41	2.43	3.89	60.11	1973.12	0.143	0.00290
		[0.07]	[0.18]	[0.48]	[0.33]	[34.38]	[1963.11,1986.02]		
PUXM	9	2.25	3.41	2.68	4.63	72.60	1980.06	0.00532	3.90E-005
		[0.07]	[0.18]	[0.32]	[0.42]	[26.14]	[1976.01,1986.11]		
GMDC	9	1.54	2.29	1.25	2.77	121.68	1970.11	0.000560	3.43E-005
		[0.06]	[0.14]	[0.30]	[0.20]	[54.90]	[1966.03,1972.08]		
GMDCD	12	2.64	3.77	4.38	2.97	−32.13	1980.02	0.262	0.00101
		[0.08]	[0.20]	[0.42]	[0.48]	[12.76]	[1971.01,1999.12]		
GMDCN	9	3.01	4.02	2.50	4.76	90.20	1973.12	0.0539	0.0110
		[0.09]	[0.21]	[0.64]	[0.44]	[51.55]	[1965.07,1981.07]		
GMDCS	9	1.35	1.77	0.85	2.14	151.39	1970.09	0.00315	0.0121
		[0.06]	[0.14]	[0.29]	[0.18]	[87.17]	[1964.12,1972.04]		
Miscellaneous									
PMI	12	2679.06	3363.29	4171.10	1464.94	−64.88	1981.11	0.000416	0.0296
		[2.41]	[5.97]	[341.67]	[523.76]	[12.88]	[1979.04,1986.03]		
PMP	12	3988.41	4271.12	5098.24	2327.41	−54.35	1981.11	0.0496	0.547
		[2.94]	[7.30]	[515.48]	[790.21]	[16.17]	[1975.10,1990.09]		
PMNO	4	4234.42	4692.02	5612.38	2366.93	−57.83	1981.12	0.0326	0.375
		[3.08]	[7.64]	[559.52]	[889.33]	[16.39]	[1977.09,1990.07]		
PMDEL	12	3292.67	5139.01	6315.13	2375.12	−62.39	1981.11	0.00225	0.000265
		[3.05]	[7.57]	[551.79]	[845.88]	[13.79]	[1980.11,1989.02]		
PMNV	12	3571.05	3864.08	4568.53	1618.65	−64.57	1982.03	0.0141	0.472
		[2.74]	[6.80]	[428.16]	[764.43]	[17.06]	[1979.05,1989.01]		
PMEMP	12	3005.81	3650.63	4072.77	2787.16	−31.57	1981.09	0.453	0.0640
		[2.53]	[6.28]	[392.60]	[561.49]	[15.28]	[1967.08,1999.12]		
PMCP	12	4437.05	5205.18	4661.55	9864.83	111.62	1990.08	0.0332	0.172
		[3.22]	[7.98]	[545.56]	[1597.23]	[42.28]	[1988.09,1994.03]		
HHSNTN	0	3752.29	4935.93	4497.97	33841.37	652.37	1991.02	1.38E-014	0.0177
		[3.03]	[7.52]	[436.62]	[3547.16]	[107.48]	[1990.11,1991.03]		
F6EDM	12	69.69	77.73	101.38	66.81	−34.10	1974.06	0.534	0.415
		[0.44]	[1.10]	[16.24]	[11.03]	[15.16]	[1968.07,1999.12]		
FTMC6	12	109.54	160.91	71.78	184.68	157.30	1973.12	0.00388	0.000141
		[0.53]	[1.29]	[26.74]	[13.81]	[97.76]	[1970.03,1975.08]		
FTMM6	5	66.74	80.54	53.95	101.32	87.82	1975.01	0.0840	0.139
		[0.43]	[1.07]	[12.99]	[11.48]	[49.99]	[1969.04,1990.05]		

Results for SupW tests for structural change in recession volatility for individual series, when a linear AR model with constant parameters is used for the conditional mean. The columns headed σ_{R} and σ_0 contain estimates of the conditional standard deviation during expansions and recessions under the null hypothesis, respectively. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation during recessions before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated volatility break date is given in the column headed τ_v, with the 90% confidence interval given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional volatility. Figures in brackets below parameter estimates are standard errors.

Table A.7: Tests for structural change in expansion volatility

Series	p	σ_{R}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production									
IP	3	11.92	7.44	8.80	5.70	−35.26	1984.03	0.000579	5.55E-006
		[0.33]	[0.13]	[0.48]	[0.55]	[7.16]	[1982.11,1990.07]		
IPP	3	12.26	7.56	8.16	5.43	−33.46	1992.06	0.0173	3.53E-007
		[0.32]	[0.13]	[0.39]	[0.73]	[9.49]	[1991.01,1998.07]		
IPF	3	12.75	8.12	9.04	6.97	−22.90	1984.01	0.0805	4.49E-006
		[0.34]	[0.14]	[0.50]	[0.56]	[7.54]	[1979.02,1997.11]		
IPC	0	14.08	9.94	11.17	8.40	−24.84	1984.01	0.0357	0.000686
		[0.37]	[0.15]	[0.61]	[0.68]	[7.30]	[1980.07,1995.09]		
IPCD	1	35.31	24.29	25.94	22.60	−12.88	1980.12	0.900	0.00226
		[0.64]	[0.26]	[1.90]	[1.92]	[9.75]	[1960.02,1999.12]		
IPCN	2	9.37	8.31	8.83	6.71	−24.02	1991.06	0.0650	0.221
		[0.31]	[0.13]	[0.37]	[0.65]	[8.02]	[1987.07,1999.11]		
IPE	5	17.98	11.71	12.52	8.90	−28.89	1992.04	0.0537	7.27E-006
		[0.40]	[0.16]	[0.59]	[1.10]	[9.37]	[1989.02,1999.10]		
IPI	3	13.27	9.49	10.48	5.93	−43.42	1992.06	0.000323	0.00121
		[0.36]	[0.15]	[0.48]	[0.92]	[9.13]	[1991.10,1995.12]		
IPM	12	15.40	9.58	11.50	7.09	−38.34	1984.04	5.83E-005	3.49E-006
		[0.38]	[0.15]	[0.61]	[0.69]	[6.86]	[1983.04,1989.05]		
IPMD	12	23.01	13.02	18.74	11.57	−38.23	1967.10	0.000695	7.98E-008
		[0.46]	[0.19]	[1.52]	[0.77]	[6.47]	[1965.07,1972.06]		
IPMND	10	16.20	11.40	12.77	9.53	−25.40	1984.10	0.0214	0.000332
		[0.39]	[0.16]	[0.65]	[0.76]	[7.08]	[1981.09,1994.11]		
IPMFG	3	13.34	8.09	9.65	6.14	−36.42	1984.01	0.000414	1.85E-006
		[0.35]	[0.14]	[0.54]	[0.61]	[7.21]	[1982.11,1990.04]		
IPD	3	18.04	10.48	12.24	8.27	−32.46	1984.01	0.0107	1.02E-006
		[0.42]	[0.17]	[0.77]	[0.86]	[8.18]	[1981.05,1993.03]		
IPN	3	10.85	7.70	8.51	5.22	−38.74	1991.06	0.00107	0.000843
		[0.33]	[0.13]	[0.40]	[0.70]	[8.70]	[1990.09,1995.12]		
IPMIN	1	15.01	12.83	13.92	9.88	−29.04	1990.01	0.0417	0.176
		[0.43]	[0.17]	[0.70]	[1.15]	[9.01]	[1987.05,1998.08]		
IPUT	10	15.99	17.44	12.77	22.20	73.88	1980.12	5.15E-009	0.475
		[0.48]	[0.19]	[1.03]	[1.04]	[16.19]	[1978.01,1981.12]		
IPX	3	914.57	579.92	723.10	465.22	−35.66	1984.03	0.00105	5.32E-005
		[3.18]	[1.33]	[46.88]	[41.96]	[7.15]	[1982.11,1990.03]		
IPXMCA	3	1017.00	664.68	799.08	496.50	−37.87	1984.01	0.000104	6.82E-005
		[3.17]	[1.28]	[43.41]	[48.56]	[6.95]	[1982.12,1989.06]		
IPXDCA	3	1297.59	795.28	979.11	651.62	−33.45	1984.01	0.00949	4.17E-005
		[3.87]	[1.62]	[70.29]	[62.14]	[7.94]	[1981.07,1991.08]		
IPXNCA	3	881.27	647.64	740.75	443.15	−40.18	1991.06	0.000227	0.00443
		[3.17]	[1.32]	[37.24]	[55.19]	[8.04]	[1990.10,1995.02]		
IPXMIN	1	1482.96	1147.97	1291.08	870.78	−32.55	1990.01	0.0178	0.0351
		[4.41]	[1.84]	[74.46]	[103.63]	[8.92]	[1988.05,1997.02]		
IPXUT	6	1504.21	1654.34	1261.39	1889.33	49.78	1980.12	0.00250	0.469
		[5.03]	[2.10]	[128.26]	[99.18]	[17.14]	[1975.07,1982.12]		
GMPYQ	9	5.88	4.14	4.46	3.63	−18.60	1986.03	0.365	0.00118
		[0.25]	[0.10]	[0.25]	[0.32]	[8.61]	[1974.01,1999.12]		
GMYXPQ	9	5.57	3.92	4.11	3.46	−15.80	1989.05	0.592	0.000450
		[0.23]	[0.09]	[0.21]	[0.33]	[9.00]	[1971.12,1999.12]		
(Un)employment									
LHEL	12	2397.36	2026.14	1203.84	2174.58	80.64	1966.02	0.00165	0.119
		[5.20]	[2.10]	[224.33]	[95.31]	[34.58]	[1962.12,1966.11]		
LHELX	4	54.56	44.96	54.93	35.10	−36.10	1980.09	8.73E-005	0.0973
		[0.81]	[0.33]	[3.00]	[2.99]	[6.46]	[1979.08,1986.08]		
LHEM	8	3.65	3.16	3.64	2.38	−34.61	1986.02	0.000176	0.184
		[0.20]	[0.08]	[0.17]	[0.22]	[6.75]	[1984.05,1990.11]		
LHNAG	8	3.74	2.95	3.19	2.14	−32.74	1992.03	0.00875	0.0191
		[0.20]	[0.08]	[0.14]	[0.26]	[8.72]	[1990.10,1997.09]		
LHUR	12	257.42	170.69	186.57	144.91	−22.33	1986.03	0.148	7.41E-005
		[1.57]	[0.64]	[10.34]	[13.17]	[8.27]	[1981.04,1999.12]		
LHU680	7	523.66	525.26	729.89	488.33	−33.10	1966.02	0.00116	0.978
		[2.56]	[1.03]	[54.57]	[23.19]	[5.93]	[1964.03,1970.07]		
LHU5	12	61.83	46.84	56.40	42.13	−25.30	1973.02	0.0301	0.00993
		[0.81]	[0.33]	[3.75]	[2.63]	[6.81]	[1967.12,1983.06]		
LHU14	5	72.67	57.83	73.67	52.28	−29.04	1969.10	0.00176	0.0210
		[0.85]	[0.34]	[4.64]	[2.75]	[5.82]	[1966.09,1975.06]		
LHU15	4	73.02	56.37	76.17	48.89	−35.81	1971.03	2.59E-006	0.00734
		[0.84]	[0.34]	[4.31]	[2.65]	[5.02]	[1969.08,1974.08]		
LHU26	4	98.63	88.91	113.28	79.81	−29.55	1971.02	0.000319	0.293
		[1.02]	[0.41]	[6.51]	[3.97]	[5.36]	[1968.08,1975.12]		
LHU27	7	86.93	76.18	96.20	57.66	−40.06	1979.08	6.05E-008	0.223
		[1.00]	[0.40]	[4.58]	[4.41]	[5.40]	[1978.07,1982.12]		
LHCH	12	189.97	214.40	197.94	300.13	51.62	1989.09	0.00250	0.324
		[1.66]	[0.72]	[10.59]	[24.17]	[14.66]	[1985.11,1991.10]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	2.66	1.68	2.21	1.06	−51.92	1983.07	2.78E-010	2.86E-005
		[0.16]	[0.07]	[0.11]	[0.12]	[6.06]	[1983.01,1986.02]		
LP	3	3.12	1.95	2.70	1.22	−54.72	1980.08	3.84E-012	2.66E-005
		[0.18]	[0.07]	[0.14]	[0.14]	[5.65]	[1980.03,1983.02]		
LPGD	3	6.06	3.46	4.56	2.05	−55.04	1984.03	7.02E-009	1.60E-006
		[0.25]	[0.10]	[0.26]	[0.29]	[6.92]	[1983.11,1987.04]		
LPMI	12	10.14	7.90	8.74	5.72	−34.51	1989.09	0.0310	0.0560
		[0.37]	[0.15]	[0.51]	[0.82]	[10.19]	[1987.08,1998.02]		
LPCC	5	13.94	9.64	12.87	5.52	−57.11	1984.03	5.56E-010	0.00423
		[0.41]	[0.17]	[0.72]	[0.81]	[6.73]	[1983.11,1986.12]		
LPEM	3	5.75	2.93	3.93	1.74	−55.86	1983.09	1.74E-006	3.11E-007
		[0.25]	[0.10]	[0.27]	[0.30]	[8.13]	[1983.02,1987.11]		
LPED	5	8.33	3.93	5.16	2.45	−52.58	1983.10	0.000246	1.07E-007
		[0.31]	[0.12]	[0.41]	[0.45]	[9.52]	[1982.12,1990.01]		
LPEN	2	4.50	2.40	3.28	1.53	−53.39	1980.09	1.89E-010	2.39E-009
		[0.20]	[0.08]	[0.18]	[0.18]	[5.98]	[1980.03,1983.06]		
LPSP	6	2.12	1.34	1.63	1.00	−38.32	1983.07	2.22E-005	5.61E-006
		[0.14]	[0.06]	[0.08]	[0.09]	[6.52]	[1981.12,1987.11]		
LPTU	12	5.42	4.37	5.48	3.37	−38.56	1979.06	0.00124	0.140
		[0.28]	[0.11]	[0.38]	[0.36]	[7.80]	[1975.08,1985.02]		
LPT	12	3.21	2.15	2.60	1.51	−42.02	1985.03	2.24E-006	0.000108
		[0.18]	[0.07]	[0.13]	[0.15]	[6.61]	[1984.05,1988.12]		
LPFR	10	1.31	1.35	1.54	1.11	−27.75	1983.10	0.00194	0.795
		[0.13]	[0.05]	[0.07]	[0.08]	[6.24]	[1980.12,1990.05]		
LPS	10	2.31	1.79	2.10	1.30	−38.14	1986.02	1.91E-005	0.0146
		[0.16]	[0.06]	[0.10]	[0.13]	[6.66]	[1984.12,1990.03]		
LPGOV	12	3.87	2.12	2.46	1.08	−55.87	1991.06	0.000153	7.67E-007
		[0.20]	[0.08]	[0.15]	[0.26]	[10.96]	[1991.04,1995.04]		
LW	4	150.87	113.17	136.91	89.17	−34.87	1984.04	0.000698	0.0165
		[1.39]	[0.55]	[8.01]	[8.06]	[7.01]	[1981.12,1989.07]		
LPHRM	12	342.51	216.90	259.17	162.96	−37.12	1984.03	0.00132	9.27E-005
		[1.91]	[0.77]	[15.78]	[17.83]	[7.87]	[1982.12,1991.05]		
LPMOSA	12	178.51	129.97	146.72	109.81	−25.16	1983.09	0.0597	0.00498
		[1.40]	[0.56]	[8.67]	[9.51]	[7.85]	[1978.10,1996.05]		
Wages and salaries									
LEH	12	3.00	2.25	2.78	1.23	−55.82	1989.02	7.18E-010	0.0165
		[0.20]	[0.08]	[0.13]	[0.19]	[7.05]	[1988.11,1991.02]		
LEHCC	11	6.75	5.30	6.59	4.47	−32.24	1976.07	0.00121	0.0367
		[0.28]	[0.11]	[0.41]	[0.33]	[6.50]	[1973.03,1982.08]		
LEHM	11	4.31	3.12	3.77	2.44	−35.29	1981.01	0.000342	0.00420
		[0.22]	[0.09]	[0.21]	[0.22]	[6.82]	[1978.08,1986.08]		
LEHTU	11	3.79	4.16	5.50	2.90	−47.31	1983.10	4.95E-009	0.514
		[0.27]	[0.11]	[0.29]	[0.28]	[5.80]	[1983.04,1986.07]		
LEHTT	9	3.31	2.62	3.10	1.99	−35.87	1986.05	6.55E-005	0.0330
		[0.20]	[0.08]	[0.15]	[0.18]	[6.53]	[1985.03,1990.08]		
LEHFR	12	5.05	4.50	5.41	2.78	−48.70	1988.10	2.14E-009	0.304
		[0.26]	[0.10]	[0.24]	[0.32]	[6.37]	[1988.03,1990.10]		
LEHS	12	3.62	2.98	3.76	1.44	−61.68	1989.02	2.85E-014	0.101
		[0.22]	[0.09]	[0.17]	[0.23]	[6.41]	[1988.11,1990.07]		
Construction									
HSFR	12	114.91	80.03	90.31	66.90	−25.93	1984.03	0.0183	0.000266
		[1.04]	[0.42]	[4.73]	[5.34]	[7.07]	[1980.04,1993.07]		
HSNE	4	252.61	173.20	187.84	154.51	−17.74	1984.03	0.314	0.000170
		[1.55]	[0.62]	[10.50]	[11.86]	[7.81]	[1975.10,1999.12]		
HSMW	3	185.20	158.55	175.71	122.16	−30.48	1988.04	0.0105	0.173
		[1.49]	[0.60]	[8.76]	[12.76]	[8.05]	[1985.05,1995.04]		
HSSOU	12	132.58	94.72	102.99	84.16	−18.29	1984.03	0.238	0.000676
		[1.12]	[0.45]	[5.53]	[6.25]	[7.49]	[1973.07,1999.12]		
HSWST	2	171.60	127.12	133.41	118.25	−11.36	1985.01	0.746	0.00109
		[1.24]	[0.50]	[6.65]	[7.89]	[7.38]	[1960.02,1999.12]		
HSBR	2	98.52	63.30	70.31	42.27	−39.89	1991.05	0.00130	1.60E-005
		[0.96]	[0.39]	[3.47]	[6.00]	[9.04]	[1990.08,1996.01]		
HSBNE	4	151.48	118.29	133.08	97.71	−26.58	1985.01	0.0300	0.0386
		[1.40]	[0.53]	[7.34]	[8.66]	[7.66]	[1981.01,1995.01]		
HSBMW	12	150.37	102.85	115.55	66.55	−42.41	1990.06	0.000835	0.00145
		[1.35]	[0.51]	[6.00]	[10.14]	[9.27]	[1989.05,1994.11]		
HSBSOU	12	108.51	76.32	63.60	80.49	26.55	1969.07	0.332	0.00130
		[1.11]	[0.42]	[7.07]	[4.05]	[15.44]	[1961.02,1976.02]		
HSBWST	1	145.46	93.83	99.72	77.19	−22.59	1990.05	0.256	5.01E-005
		[1.25]	[0.47]	[5.20]	[8.73]	[9.64]	[1986.03,1999.12]		
HNS	2	123.78	77.63	80.00	66.56	−16.80	1994.06	0.711	7.16E-007
		[1.07]	[0.42]	[3.72]	[8.04]	[10.77]	[1987.08,1999.12]		
HNSNE	12	229.33	171.95	180.64	132.27	−26.78	1995.12	0.323	0.0160
		[1.82]	[0.74]	[9.82]	[20.98]	[12.28]	[1993.09,1999.12]		
HNSMW	11	176.54	122.04	91.20	127.16	39.43	1978.05	0.483	0.00294
		[1.60]	[0.65]	[18.18]	[7.40]	[28.95]	[1974.02,1983.10]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	146.00	96.58	104.75	71.68	−31.57	1994.06	0.0614	0.000239
		[1.37]	[0.56]	[5.76]	[10.05]	[10.30]	[1991.12,1999.11]		
HNSWST	12	182.46	118.29	127.13	80.87	−36.39	1995.09	0.0897	0.000388
		[1.59]	[0.65]	[7.47]	[15.38]	[12.67]	[1994.04,1999.12]		
HNR	4	1031.67	519.05	549.60	373.85	−31.98	1994.07	0.0891	5.62E-014
		[2.90]	[1.13]	[27.06]	[58.99]	[11.24]	[1992.01,1999.12]		
HMOB	3	85.76	47.43	58.87	36.09	−38.69	1980.09	1.91E-005	8.07E-010
		[0.84]	[0.34]	[3.22]	[3.21]	[6.40]	[1979.05,1985.07]		
CONTC	1	26.33	17.01	20.48	13.58	−33.70	1984.02	0.000397	2.35E-005
		[0.52]	[0.21]	[1.13]	[1.12]	[6.58]	[1982.05,1989.06]		
CONPC	6	21.06	17.46	23.35	14.54	−37.71	1977.04	6.56E-006	0.105
		[0.52]	[0.21]	[1.38]	[0.97]	[5.55]	[1975.12,1981.01]		
CONQC	2	43.55	34.24	40.14	28.95	−27.89	1983.05	0.00767	0.0313
		[0.73]	[0.29]	[2.29]	[2.16]	[6.78]	[1980.05,1990.11]		
CONDO9	9	117.97	87.91	68.92	92.00	33.48	1966.12	0.260	0.00503
		[1.10]	[0.44]	[9.47]	[4.40]	[19.42]	[1960.02,1971.01]		
Trade									
MSMTQ	12	14.34	10.76	11.95	7.22	−39.60	1991.05	0.000115	0.00316
		[0.37]	[0.15]	[0.51]	[0.89]	[7.86]	[1990.06,1994.11]		
MSMQ	12	18.64	14.63	17.42	11.84	−32.05	1980.10	0.000199	0.0178
		[0.44]	[0.18]	[0.88]	[0.88]	[6.09]	[1978.10,1986.06]		
MSDQ	12	26.16	21.07	23.61	14.12	−40.20	1990.02	0.000125	0.0411
		[0.53]	[0.21]	[1.06]	[1.76]	[7.95]	[1988.11,1993.09]		
MSNQ	3	16.41	11.92	13.67	9.91	−27.52	1983.04	0.00456	0.00108
		[0.39]	[0.16]	[0.69]	[0.74]	[6.55]	[1980.06,1991.01]		
WTQ	3	18.65	15.31	17.48	11.36	−34.99	1987.02	0.000207	0.0605
		[0.45]	[0.18]	[0.81]	[1.09]	[6.95]	[1985.08,1991.11]		
WTDQ	5	21.94	16.97	18.19	12.02	−33.90	1993.03	0.0132	0.0111
		[0.47]	[0.19]	[0.81]	[1.63]	[9.43]	[1991.08,1998.05]		
WTNQ	4	25.16	20.68	22.83	14.82	−35.08	1990.01	0.000726	0.0521
		[0.51]	[0.21]	[0.99]	[1.63]	[7.69]	[1989.01,1994.08]		
RTQ	11	18.53	12.01	13.79	8.37	−39.31	1988.01	0.000192	2.34E-005
		[0.42]	[0.17]	[0.69]	[0.99]	[7.77]	[1987.01,1992.09]		
RTDQ	2	43.42	27.16	30.43	17.84	−41.37	1990.05	0.00112	9.68E-006
		[0.65]	[0.26]	[1.57]	[2.65]	[9.23]	[1989.08,1995.03]		
RTNQ	12	10.57	8.34	9.94	6.13	−38.34	1984.11	1.24E-006	0.0173
		[0.33]	[0.13]	[0.45]	[0.52]	[5.96]	[1983.09,1988.04]		
Inventories									
IVMTQ	3	5.82	3.65	4.59	3.37	−26.60	1968.10	0.00756	3.28E-008
		[0.21]	[0.08]	[0.30]	[0.16]	[6.00]	[1965.05,1975.09]		
IVMFGQ	12	4.76	3.82	4.28	3.68	−14.05	1968.08	0.670	0.0280
		[0.22]	[0.09]	[0.34]	[0.18]	[7.98]	[1960.02,1999.03]		
IVMFDQ	12	6.18	4.93	6.07	4.51	−25.71	1970.12	0.0200	0.0291
		[0.25]	[0.10]	[0.41]	[0.25]	[6.47]	[1967.08,1981.09]		
IVMFNQ	2	5.97	5.10	5.63	4.14	−26.46	1986.12	0.0104	0.120
		[0.25]	[0.10]	[0.26]	[0.34]	[6.98]	[1984.01,1994.09]		
IVWRQ	12	11.37	7.28	8.10	5.66	−30.10	1987.10	0.00425	1.08E-006
		[0.31]	[0.12]	[0.38]	[0.53]	[7.36]	[1985.06,1994.03]		
IVRRQ	12	10.41	7.92	8.58	6.58	−23.25	1988.01	0.0736	0.00605
		[0.32]	[0.13]	[0.41]	[0.59]	[7.77]	[1981.12,1998.04]		
IVSRQ	12	21.31	15.37	16.68	10.02	−39.91	1993.03	0.00104	0.000706
		[0.45]	[0.18]	[0.72]	[1.45]	[9.10]	[1992.04,1996.10]		
IVSRMQ	12	28.30	23.22	24.91	16.49	−33.80	1993.01	0.0147	0.0619
		[0.56]	[0.22]	[1.13]	[2.24]	[9.49]	[1991.12,1998.08]		
IVSRWQ	2	23.92	19.79	13.81	20.82	50.79	1965.12	0.0349	0.0594
		[0.50]	[0.20]	[2.11]	[0.88]	[23.93]	[1961.01,1967.11]		
IVSRRQ	5	25.36	19.06	20.64	14.76	−28.50	1990.01	0.0685	0.0117
		[0.53]	[0.21]	[1.09]	[1.79]	[9.44]	[1987.10,1999.12]		
Orders									
MOCMQ	12	36.23	25.98	27.84	19.71	−29.21	1992.02	0.0319	0.000577
		[0.58]	[0.23]	[1.25]	[2.31]	[8.88]	[1990.02,1999.02]		
MDOQ	6	47.59	33.47	35.42	27.06	−23.59	1991.12	0.131	0.000160
		[0.65]	[0.26]	[1.59]	[2.88]	[8.82]	[1988.05,1999.12]		
MSONDQ	9	85.95	71.16	46.99	76.37	62.53	1966.12	0.00321	0.0647
		[0.95]	[0.38]	[7.01]	[3.25]	[25.20]	[1963.02,1968.02]		
MO	6	29.30	20.55	21.40	16.87	−21.18	1993.07	0.273	5.70E-005
		[0.50]	[0.20]	[0.90]	[1.87]	[9.35]	[1989.03,1999.12]		
MOWU	6	39.79	29.12	30.35	24.11	−20.58	1993.03	0.325	0.000855
		[0.60]	[0.24]	[1.33]	[2.69]	[9.51]	[1988.03,1999.12]		
MDO	6	48.26	33.27	35.18	27.00	−23.25	1991.12	0.130	4.06E-005
		[0.64]	[0.26]	[1.55]	[2.81]	[8.68]	[1988.04,1999.12]		
MDUWU	6	47.98	35.13	36.81	29.63	−19.51	1991.12	0.323	0.00101
		[0.67]	[0.27]	[1.66]	[3.01]	[8.95]	[1986.04,1999.12]		
MNO	12	17.81	12.06	12.84	9.16	−28.65	1992.09	0.0922	0.000129
		[0.41]	[0.17]	[0.63]	[1.21]	[10.07]	[1990.02,1999.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	23.47	19.93	16.94	21.14	24.82	1971.09	0.133	0.0798
		[0.48]	[0.19]	[1.40]	[0.89]	[11.57]	[1960.11,1979.10]		
MU	3	8.87	7.55	8.88	7.03	−20.79	1971.05	0.0871	0.108
		[0.31]	[0.12]	[0.58]	[0.36]	[6.54]	[1964.06,1982.12]		
MDU	3	9.14	7.86	9.31	7.27	−21.90	1971.09	0.0542	0.134
		[0.31]	[0.13]	[0.59]	[0.38]	[6.41]	[1965.11,1982.07]		
MNU	12	20.76	16.60	17.63	14.64	−16.92	1987.07	0.323	0.0225
		[0.45]	[0.18]	[0.84]	[1.16]	[7.66]	[1976.10,1999.12]		
MPCON	5	87.11	74.34	51.85	80.19	54.65	1967.12	0.00109	0.0941
		[0.93]	[0.37]	[6.17]	[3.15]	[19.39]	[1964.03,1969.05]		
MPCONQ	9	85.59	73.41	78.87	51.78	−34.35	1993.01	0.00138	0.0966
		[0.91]	[0.37]	[3.02]	[6.01]	[8.02]	[1991.06,1996.08]		
Consumption									
GMCQ	8	8.43	5.81	6.62	4.11	−37.93	1988.04	0.000230	0.000254
		[0.28]	[0.11]	[0.32]	[0.46]	[7.61]	[1986.11,1992.09]		
GMCDQ	8	40.43	27.57	29.65	21.57	−27.27	1990.06	0.0797	0.000201
		[0.63]	[0.25]	[1.49]	[2.53]	[9.28]	[1988.08,1999.12]		
GMCNQ	12	8.27	7.06	8.55	4.99	−41.61	1984.11	3.30E-007	0.148
		[0.31]	[0.12]	[0.40]	[0.47]	[6.13]	[1983.10,1988.01]		
GMCSQ	10	4.24	3.38	1.40	3.90	178.74	1968.01	1.42E-009	0.0426
		[0.22]	[0.09]	[0.33]	[0.17]	[67.71]	[1966.05,1968.03]		
GMCANQ	5	115.67	69.21	75.97	50.87	−33.04	1990.01	0.0351	2.22E-006
		[1.05]	[0.43]	[4.25]	[7.00]	[9.95]	[1987.01,1998.02]		
Money and credit									
FM1	9	4.87	4.33	3.31	5.22	57.84	1979.03	9.68E-006	0.290
		[0.24]	[0.10]	[0.27]	[0.25]	[15.06]	[1974.10,1980.08]		
FM2	12	2.62	2.27	1.48	2.42	63.68	1966.03	0.0233	0.232
		[0.18]	[0.07]	[0.27]	[0.12]	[30.92]	[1961.03,1967.01]		
FM3	8	2.85	2.42	1.40	2.61	86.97	1966.04	0.000511	0.131
		[0.18]	[0.07]	[0.26]	[0.11]	[35.81]	[1963.05,1966.10]		
FML	12	2.98	3.38	3.05	4.05	32.60	1987.01	0.00367	0.231
		[0.19]	[0.08]	[0.15]	[0.22]	[9.68]	[1981.03,1991.02]		
FM2DQ	10	3.78	2.78	2.26	3.04	34.74	1973.01	0.0501	0.00320
		[0.20]	[0.08]	[0.22]	[0.15]	[14.74]	[1963.01,1977.06]		
FMFBA	11	2.33	2.57	2.82	2.42	−14.33	1975.11	0.476	0.401
		[0.18]	[0.07]	[0.17]	[0.13]	[7.09]	[1960.02,1996.09]		
FMBASE	12	3.87	3.96	3.57	4.31	20.72	1979.09	0.233	0.836
		[0.22]	[0.09]	[0.23]	[0.23]	[10.16]	[1960.02,1990.01]		
FMRRA	11	9.08	10.27	9.15	11.12	21.43	1977.12	0.153	0.261
		[0.35]	[0.14]	[0.60]	[0.52]	[9.77]	[1962.04,1986.07]		
FMRNBA	1	24.14	16.62	12.60	19.48	54.55	1977.05	0.00432	0.00233
		[0.53]	[0.21]	[1.41]	[1.19]	[19.74]	[1969.09,1980.02]		
FMRNBC	1	21.25	14.23	15.72	9.90	−37.03	1988.04	0.0134	0.000329
		[0.47]	[0.20]	[0.87]	[1.48]	[10.07]	[1987.01,1994.07]		
FCLS	2	4.06	3.80	3.47	4.96	42.73	1995.02	0.0336	0.619
		[0.27]	[0.11]	[0.22]	[0.43]	[15.37]	[1986.07,1997.01]		
FCSGV	3	13.71	9.13	10.31	8.02	−22.29	1987.10	0.244	0.000838
		[0.44]	[0.18]	[0.74]	[0.71]	[8.87]	[1981.04,1999.12]		
FCLRE	3	2.67	2.90	2.50	4.67	87.23	1995.11	1.07E-005	0.617
		[0.25]	[0.10]	[0.18]	[0.38]	[20.58]	[1992.04,1996.05]		
FCLIN	3	4.87	3.80	3.35	5.92	76.57	1996.01	0.000124	0.0673
		[0.29]	[0.12]	[0.23]	[0.51]	[19.47]	[1993.05,1997.02]		
FCLNBF	1	18.89	19.00	13.91	24.76	78.00	1985.09	2.07E-005	0.966
		[0.60]	[0.29]	[1.49]	[1.58]	[22.21]	[1983.04,1986.09]		
FCLNQ	7	10.51	8.58	5.37	9.41	75.14	1967.11	0.000131	0.0461
		[0.33]	[0.13]	[0.78]	[0.40]	[26.60]	[1964.10,1968.09]		
FCLBMC	8	24896.10	30201.62	10084.05	48996.91	385.89	1979.09	8.77E-036	0.259
		[23.08]	[9.31]	[2182.64]	[2109.69]	[107.23]	[1978.09,1979.10]		
CCI30M	12	75.12	84.36	48.42	108.21	123.49	1973.10	3.92E-010	0.417
		[1.13]	[0.49]	[6.77]	[5.51]	[33.26]	[1971.05,1974.01]		
CCINT	8	2708509.87	2319996.44	921559.63	2894696.50	214.11	1981.07	1.67E-007	0.395
		[279.26]	[106.57]	[282030.97]	[180798.99]	[98.11]	[1980.02,1981.09]		
CCINV	7	1301824.38	1155152.24	389750.96	1433940.79	267.91	1981.02	5.47E-009	0.501
		[192.79]	[73.57]	[138629.29]	[83665.78]	[132.61]	[1979.12,1981.03]		
Stock prices									
FSNCOM	2	59.18	33.68	35.60	29.47	−17.21	1988.07	0.495	1.24E-009
		[0.69]	[0.28]	[1.89]	[2.80]	[9.00]	[1976.07,1999.12]		
FSNIN	2	66.03	35.18	38.74	29.03	−25.06	1988.12	0.130	2.55E-010
		[0.77]	[0.32]	[2.31]	[3.03]	[9.02]	[1983.10,1999.12]		
FSNTR	2	85.93	50.27	54.16	41.98	−22.49	1990.04	0.182	1.53E-008
		[0.88]	[0.36]	[2.88]	[4.20]	[8.79]	[1982.06,1999.12]		
FSNUT	5	50.47	31.94	37.07	30.32	−18.20	1976.01	0.377	1.21E-006
		[0.68]	[0.28]	[2.95]	[1.65]	[7.89]	[1968.05,1995.11]		
FSNFI	2	79.85	46.26	49.17	41.89	−14.81	1988.01	0.668	1.84E-008
		[0.86]	[0.35]	[2.92]	[3.58]	[8.86]	[1969.08,1999.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	57.71	33.49	34.56	30.45	−11.88	1990.05	0.938	4.34E-009
		[0.68]	[0.28]	[1.79]	[3.02]	[9.87]	[1960.02,1999.12]		
FSPIN	2	59.23	33.94	35.47	30.37	−14.37	1988.12	0.737	2.18E-009
		[0.69]	[0.28]	[1.89]	[2.88]	[9.30]	[1969.01,1999.12]		
FSPCAP	1	67.74	40.60	42.30	36.50	−13.69	1989.03	0.785	5.55E-008
		[0.75]	[0.30]	[2.22]	[3.44]	[9.31]	[1966.02,1999.12]		
FSPTR	2	82.91	49.85	53.65	43.15	−19.58	1990.03	0.347	1.24E-006
		[0.97]	[0.38]	[3.09]	[4.10]	[8.94]	[1981.02,1999.12]		
FSPUT	5	52.10	33.77	27.16	35.08	29.16	1966.07	0.306	8.73E-007
		[0.65]	[0.26]	[3.42]	[1.52]	[17.18]	[1960.02,1973.12]		
FSPFI	2	83.24	51.37	49.03	62.31	27.08	1995.07	0.337	2.54E-006
		[0.96]	[0.38]	[2.70]	[5.84]	[13.82]	[1985.04,1999.12]		
Dividends and volume									
FSDXP	1	61.72	35.94	34.68	41.94	20.94	1993.12	0.629	1.37E-008
		[0.72]	[0.29]	[1.86]	[4.05]	[13.37]	[1968.01,1999.12]		
FSPXE	4	63.69	41.13	37.93	42.83	12.93	1973.09	0.905	9.23E-006
		[0.76]	[0.31]	[3.22]	[2.35]	[11.43]	[1960.02,1999.12]		
FSNVV3	12	38.86	31.82	55.20	25.76	−53.32	1979.04	1.01E-009	0.206
		[0.96]	[0.35]	[3.91]	[1.99]	[4.89]	[1978.12,1981.03]		
Interest rates									
FYFF	12	961.96	362.97	437.62	197.36	−54.90	1988.08	0.000875	2.28E-016
		[2.88]	[1.16]	[32.30]	[48.12]	[11.49]	[1988.03,1994.04]		
FYCP	12	830.86	383.04	198.33	449.85	126.82	1969.05	3.77E-005	1.73E-013
		[2.62]	[1.09]	[44.31]	[26.65]	[52.42]	[1965.12,1969.10]		
FYGM3	12	850.35	315.79	116.55	354.49	204.16	1966.06	0.000454	6.50E-022
		[2.51]	[1.01]	[50.56]	[22.28]	[133.32]	[1963.06,1966.11]		
FYGM6	12	803.17	314.39	129.59	350.28	170.29	1966.06	0.000464	2.70E-021
		[2.42]	[0.97]	[46.95]	[20.69]	[99.21]	[1963.07,1966.12]		
FYGT1	12	763.00	358.49	181.69	407.20	124.11	1968.04	2.53E-005	3.60E-015
		[2.41]	[0.97]	[40.35]	[21.18]	[51.12]	[1965.05,1968.09]		
FYGT5	6	516.65	307.11	143.65	352.15	145.14	1968.04	2.26E-007	2.58E-007
		[2.15]	[0.87]	[31.62]	[16.60]	[55.19]	[1966.03,1968.08]		
FYGT10	12	400.89	256.80	110.94	296.42	167.20	1968.03	5.41E-008	3.28E-005
		[1.98]	[0.80]	[27.05]	[14.10]	[66.39]	[1966.04,1968.06]		
FYAAAC	12	277.60	187.13	115.30	251.05	117.74	1979.04	3.29E-010	0.00106
		[1.77]	[0.71]	[14.37]	[13.55]	[29.57]	[1976.06,1979.10]		
FYBAAC	4	262.01	174.79	97.29	241.12	147.85	1978.12	5.01E-014	0.000586
		[1.70]	[0.68]	[13.11]	[12.13]	[35.66]	[1976.11,1979.04]		
FWAFIT	3	475.91	270.98	398.62	204.73	−48.64	1981.05	9.61E-005	2.27E-005
		[2.57]	[1.21]	[33.73]	[24.30]	[7.49]	[1980.07,1984.06]		
FYFHA	4	358.65	258.73	126.06	381.48	202.61	1979.08	5.91E-016	0.0193
		[2.20]	[0.89]	[21.44]	[20.63]	[54.01]	[1977.07,1979.10]		
Exchange rates									
EXRUS	2	23.41	18.46	12.61	19.84	57.28	1979.06	0.0502	0.0987
		[0.71]	[0.25]	[2.22]	[1.08]	[28.92]	[1975.04,1981.01]		
EXRGER	1	30.84	29.65	21.68	31.22	44.01	1978.09	0.165	0.787
		[0.86]	[0.30]	[3.58]	[1.59]	[24.87]	[1975.02,1980.08]		
EXRSW	1	41.07	32.70	23.81	35.17	47.67	1980.01	0.0556	0.0951
		[0.92]	[0.32]	[3.47]	[1.83]	[22.85]	[1975.10,1983.06]		
EXRJAN	3	37.79	30.06	27.93	37.72	35.07	1995.02	0.106	0.103
		[0.89]	[0.31]	[1.73]	[3.29]	[14.45]	[1988.08,1999.03]		
EXRUK	3	28.47	26.04	29.97	16.86	−43.74	1993.04	0.000291	0.572
		[0.85]	[0.29]	[1.63]	[2.49]	[8.84]	[1992.08,1996.02]		
EXRCAN	12	11.17	11.75	10.26	12.95	26.23	1986.12	0.110	0.713
		[0.51]	[0.18]	[0.76]	[0.69]	[11.54]	[1979.10,1993.09]		
Producer prices									
PWFSA	9	5.67	4.06	4.39	3.15	−28.27	1990.03	0.0961	0.00335
		[0.25]	[0.10]	[0.24]	[0.40]	[9.86]	[1986.08,1999.12]		
PWFCSA	9	6.72	5.15	5.53	3.96	−28.30	1991.08	0.0795	0.0164
		[0.27]	[0.11]	[0.28]	[0.49]	[9.65]	[1988.08,1999.12]		
PWIMSA	4	7.06	3.90	4.21	3.04	−27.81	1990.02	0.212	1.43E-007
		[0.26]	[0.11]	[0.26]	[0.43]	[11.22]	[1986.05,1999.12]		
PWCMSA	11	30.10	20.23	17.80	31.72	78.23	1993.12	5.60E-006	0.000366
		[0.56]	[0.23]	[1.11]	[2.41]	[17.51]	[1990.08,1995.02]		
PWFXSA	9	5.81	4.30	3.42	4.69	37.07	1978.08	0.153	0.0145
		[0.27]	[0.11]	[0.43]	[0.28]	[19.03]	[1968.07,1984.11]		
PW160A	12	17.71	17.02	22.33	15.88	−28.86	1979.02	0.0431	0.787
		[0.65]	[0.23]	[1.96]	[0.90]	[7.44]	[1976.03,1983.03]		
PW150A	9	18.18	16.26	25.10	13.36	−46.77	1981.03	1.51E-007	0.488
		[0.68]	[0.24]	[1.72]	[0.99]	[5.37]	[1980.08,1983.07]		
PW561	5	55.60	46.59	18.91	90.62	379.09	1986.01	4.19E-030	0.317
		[1.01]	[0.41]	[3.79]	[4.78]	[99.16]	[1984.07,1986.02]		
PWCM	9	4.94	5.26	5.89	4.51	−23.55	1983.07	0.0545	0.625
		[0.27]	[0.11]	[0.32]	[0.35]	[7.30]	[1979.10,1996.09]		

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Series	p	σ_{R}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	7.01	4.29	3.50	4.42	26.41	1972.11	0.825	1.21E-005
		[0.28]	[0.12]	[0.63]	[0.26]	[23.94]	[1968.02,1981.11]		
PSM99Q	12	17.14	13.91	10.89	14.50	33.18	1966.07	0.222	0.0399
		[0.42]	[0.17]	[1.44]	[0.64]	[18.57]	[1960.02,1970.08]		
PSCCOM	12	22.70	19.24	14.88	21.31	43.19	1972.11	0.00907	0.136
		[0.51]	[0.21]	[1.51]	[1.04]	[16.12]	[1965.03,1974.08]		
PSCFOO	12	37.20	28.67	21.84	31.81	45.69	1972.08	0.0118	0.0199
		[0.64]	[0.26]	[2.41]	[1.64]	[17.74]	[1964.10,1974.08]		
PSCMAT	6	24.22	19.73	21.20	16.89	−20.32	1987.07	0.168	0.0471
		[0.51]	[0.20]	[1.04]	[1.44]	[7.82]	[1982.05,1999.12]		
PZFR	6	22.37	20.46	22.26	18.56	−16.62	1988.11	0.487	0.545
		[0.74]	[0.25]	[1.41]	[1.45]	[8.40]	[1978.06,1999.12]		
PCGOLD	7	74.85	45.28	66.85	37.68	−43.63	1983.06	0.000151	0.00101
		[1.25]	[0.43]	[5.50]	[3.26]	[6.73]	[1982.07,1986.10]		
Consumer prices									
PUNEW	9	2.84	1.94	2.14	1.36	−36.40	1990.06	0.00474	0.000275
		[0.17]	[0.07]	[0.11]	[0.18]	[9.06]	[1988.09,1995.12]		
PU81	12	4.85	3.86	5.45	3.02	−44.55	1979.09	1.16E-006	0.0791
		[0.26]	[0.11]	[0.35]	[0.26]	[5.94]	[1978.12,1983.05]		
PUH	9	3.91	2.13	2.72	1.45	−46.71	1986.08	2.86E-005	2.29E-007
		[0.21]	[0.09]	[0.18]	[0.19]	[7.74]	[1986.02,1990.11]		
PU83	6	3.58	3.80	2.83	5.36	89.52	1986.01	1.56E-012	0.622
		[0.23]	[0.09]	[0.21]	[0.26]	[16.63]	[1983.06,1986.08]		
PU84	8	7.08	5.37	4.80	5.86	22.18	1978.12	0.340	0.0137
		[0.28]	[0.11]	[0.38]	[0.35]	[12.12]	[1960.02,1987.06]		
PU85	6	2.35	2.07	2.83	1.20	−57.57	1983.04	1.47E-012	0.352
		[0.18]	[0.07]	[0.15]	[0.16]	[5.94]	[1983.01,1985.08]		
PUC	9	3.95	3.03	2.60	3.23	24.31	1972.12	0.320	0.0154
		[0.21]	[0.08]	[0.25]	[0.17]	[13.58]	[1960.02,1977.12]		
PUCD	12	3.63	2.61	2.99	1.81	−39.38	1988.04	2.22E-005	0.000728
		[0.19]	[0.07]	[0.13]	[0.19]	[7.07]	[1987.03,1991.12]		
PUS	9	3.39	2.12	2.83	1.30	−53.88	1983.04	1.83E-011	1.51E-005
		[0.18]	[0.07]	[0.14]	[0.15]	[5.89]	[1982.12,1985.10]		
PUXF	9	3.10	2.14	2.48	1.53	−38.18	1987.01	2.01E-005	0.000115
		[0.17]	[0.07]	[0.11]	[0.15]	[6.75]	[1985.09,1990.11]		
PUXHS	12	2.97	2.46	2.69	1.78	−33.71	1991.07	0.00298	0.0655
		[0.18]	[0.07]	[0.12]	[0.21]	[8.18]	[1989.08,1996.03]		
PUXM	9	3.02	2.24	2.56	1.60	−37.35	1987.09	7.80E-005	0.00277
		[0.17]	[0.07]	[0.12]	[0.17]	[7.07]	[1986.02,1991.09]		
GMDC	9	2.25	1.47	1.55	1.20	−22.50	1992.09	0.284	1.19E-005
		[0.14]	[0.06]	[0.07]	[0.14]	[9.97]	[1988.02,1999.12]		
GMDCD	12	3.44	2.54	2.75	2.32	−15.38	1981.05	0.538	0.00533
		[0.19]	[0.08]	[0.17]	[0.17]	[8.14]	[1964.10,1999.12]		
GMDCN	9	3.86	2.85	2.36	3.08	30.26	1972.12	0.187	0.00753
		[0.21]	[0.08]	[0.25]	[0.17]	[15.43]	[1960.02,1978.01]		
GMDCS	9	1.73	1.33	0.92	1.53	66.33	1972.12	2.25E-005	0.00995
		[0.13]	[0.05]	[0.10]	[0.07]	[19.75]	[1969.02,1973.12]		
Miscellaneous									
PMI	12	3321.67	2636.15	3054.42	2091.70	−31.52	1984.05	0.000685	0.0265
		[5.92]	[2.39]	[150.85]	[172.11]	[6.57]	[1982.06,1990.06]		
PMP	12	4097.56	3932.71	4467.24	3179.36	−28.83	1985.01	0.00382	0.719
		[7.21]	[2.91]	[220.90]	[262.25]	[6.84]	[1982.10,1992.06]		
PMNO	4	4717.93	4172.36	4549.72	3656.21	−19.64	1984.10	0.207	0.285
		[7.60]	[3.07]	[249.57]	[291.88]	[7.78]	[1976.05,1999.12]		
PMDEL	12	4785.15	3262.54	4349.28	2175.80	−49.97	1980.10	1.58E-008	0.00156
		[7.38]	[2.98]	[244.71]	[244.71]	[6.29]	[1980.04,1984.04]		
PMNV	12	3832.80	3447.69	3863.65	2535.15	−34.38	1988.07	0.000339	0.316
		[6.60]	[2.66]	[169.88]	[251.61]	[7.12]	[1987.05,1993.03]		
PMEMP	12	3745.91	2917.84	3276.27	2182.38	−33.39	1988.01	0.000775	0.0134
		[6.16]	[2.48]	[149.95]	[214.80]	[7.23]	[1986.04,1993.02]		
PMCP	12	5220.32	4295.03	4718.30	3593.23	−23.84	1986.05	0.0786	0.0822
		[7.77]	[3.13]	[250.12]	[322.07]	[7.93]	[1979.09,1997.08]		
HHSNTN	0	4841.70	3763.40	2043.97	5097.45	149.39	1978.02	1.21E-016	0.0302
		[7.51]	[3.03]	[261.36]	[230.22]	[33.82]	[1976.05,1978.05]		
F6EDM	12	59.98	63.75	92.59	55.96	−39.57	1972.05	2.10E-005	0.653
		[1.02]	[0.40]	[6.52]	[3.39]	[5.61]	[1971.06,1976.11]		
FTMC6	12	140.54	102.66	108.18	83.89	−22.45	1991.08	0.298	0.00273
		[1.24]	[0.51]	[5.42]	[10.01]	[10.03]	[1987.08,1998.01]		
FTMM6	5	81.73	59.43	75.33	32.38	−57.02	1988.02	3.47E-009	0.0138
		[1.06]	[0.42]	[4.01]	[5.23]	[7.31]	[1987.12,1990.07]		

Results for SupW tests for structural change in expansion volatility for individual series, when a linear AR model with structural change is used for the conditional mean. The columns headed σ_{R} and σ_0 contain estimates of the conditional standard deviation during recessions and expansions under the null hypothesis, respectively. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation during expansions before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated volatility break date is given in the column headed τ_v, with the 90% confidence interval given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional volatility. Figures in brackets below parameter estimates are standard errors.

Table A.8: Tests for structural change in recession volatility

Series	p	σ_E	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production									
IP	3	7.44	11.92	9.75	13.79	41.33	1974.09	0.261	5.55E-006
		[0.13]	[0.33]	[1.34]	[1.24]	[23.21]	[1961.08,1994.07]		
IPP	3	7.56	12.26	9.92	14.28	43.96	1974.09	0.127	3.53E-007
		[0.13]	[0.32]	[1.25]	[1.16]	[21.59]	[1964.02,1988.04]		
IPF	3	8.12	12.75	8.99	14.03	56.08	1970.07	0.194	4.49E-006
		[0.14]	[0.34]	[1.85]	[1.08]	[34.22]	[1960.02,1981.02]		
IPC	0	9.94	14.08	16.38	10.45	−36.20	1980.05	0.122	0.000686
		[0.15]	[0.37]	[1.43]	[1.80]	[12.34]	[1975.06,1997.06]		
IPCD	1	24.29	35.31	33.73	51.37	52.31	1990.09	0.718	0.00226
		[0.26]	[0.64]	[3.50]	[11.16]	[36.68]	[1982.05,1999.12]		
IPCN	2	8.31	9.37	11.05	6.74	−39.01	1980.05	0.111	0.221
		[0.13]	[0.31]	[1.03]	[1.29]	[12.96]	[1971.11,1993.03]		
IPE	5	11.71	17.98	10.70	20.65	92.93	1970.08	0.0111	7.27E-006
		[0.16]	[0.40]	[2.47]	[1.50]	[46.67]	[1964.08,1974.02]		
IPI	3	9.49	13.27	12.75	24.46	91.80	1990.12	0.243	0.00121
		[0.15]	[0.36]	[1.10]	[5.10]	[43.29]	[1989.10,1994.03]		
IPM	12	9.58	15.40	17.66	6.84	−61.29	1982.05	0.00282	3.49E-006
		[0.15]	[0.38]	[1.29]	[2.51]	[14.47]	[1980.07,1987.04]		
IPMD	12	13.02	23.01	26.16	12.97	−50.43	1982.03	0.0177	7.98E-008
		[0.19]	[0.46]	[1.96]	[3.49]	[13.86]	[1980.04,1990.03]		
IPMND	10	11.40	16.20	10.04	20.91	108.39	1974.07	0.000272	0.000332
		[0.16]	[0.39]	[1.85]	[1.62]	[41.66]	[1970.03,1977.10]		
IPMFG	3	8.09	13.34	10.48	15.80	50.80	1974.09	0.110	1.85E-006
		[0.14]	[0.35]	[1.49]	[1.38]	[25.16]	[1965.07,1988.11]		
IPD	3	10.48	18.04	15.07	20.76	37.74	1974.10	0.382	1.02E-006
		[0.17]	[0.42]	[2.07]	[1.98]	[23.01]	[1961.06,1999.12]		
IPN	3	7.70	10.85	8.30	13.06	57.34	1974.09	0.0852	0.000843
		[0.13]	[0.33]	[1.28]	[1.19]	[28.16]	[1963.07,1983.11]		
IPMIN	1	12.83	15.01	11.29	17.85	58.17	1974.07	0.271	0.176
		[0.17]	[0.43]	[2.26]	[1.98]	[36.21]	[1960.02,1986.03]		
IPUT	10	17.44	15.99	4.68	18.97	305.24	1970.04	0.0309	0.475
		[0.19]	[0.48]	[4.09]	[2.10]	[356.84]	[1963.07,1972.08]		
IPX	3	579.92	914.57	1004.52	638.29	−36.46	1982.05	0.331	5.32E-005
		[1.33]	[3.18]	[87.47]	[153.29]	[16.23]	[1977.09,1999.12]		
IPXMCA	3	664.68	1017.00	844.45	1165.58	38.03	1974.09	0.400	6.82E-005
		[1.28]	[3.17]	[120.14]	[111.48]	[23.66]	[1960.02,1999.12]		
IPXDCA	3	795.28	1297.59	1405.33	1044.08	−25.71	1982.02	0.749	4.17E-005
		[1.62]	[3.87]	[134.63]	[206.51]	[16.33]	[1969.03,1999.12]		
IPXNCA	3	647.64	881.27	1001.23	599.01	−40.17	1982.02	0.161	0.00443
		[1.32]	[3.17]	[89.71]	[137.60]	[14.75]	[1977.05,1995.06]		
IPXMIN	1	1147.97	1482.96	991.46	1728.71	74.36	1974.07	0.183	0.0351
		[1.84]	[4.41]	[252.14]	[178.29]	[47.85]	[1968.02,1981.03]		
IPXUT	6	1654.34	1504.21	1432.43	2250.76	57.13	1990.10	0.915	0.469
		[2.10]	[5.03]	[199.88]	[644.59]	[50.06]	[1978.09,1999.12]		
GMPYQ	9	4.14	5.88	6.64	4.22	−36.44	1981.10	0.232	0.00118
		[0.10]	[0.25]	[0.60]	[0.88]	[14.48]	[1973.07,1998.09]		
GMYXPQ	9	3.92	5.57	4.53	5.98	31.99	1970.09	0.722	0.000450
		[0.09]	[0.23]	[0.82]	[0.51]	[26.34]	[1960.02,1990.05]		
(Un)employment									
LHEL	12	2026.14	2397.36	1491.43	3008.86	101.74	1974.05	0.0125	0.119
		[2.10]	[5.20]	[344.15]	[282.75]	[50.27]	[1966.02,1978.01]		
LHELX	4	44.96	54.56	67.97	25.18	−62.95	1981.10	0.00387	0.0973
		[0.33]	[0.81]	[6.38]	[9.45]	[14.33]	[1980.04,1989.06]		
LHEM	8	3.16	3.65	5.10	3.40	−33.49	1965.12	0.518	0.184
		[0.08]	[0.20]	[0.88]	[0.37]	[13.62]	[1960.02,1989.01]		
LHNAG	8	2.95	3.74	4.17	2.86	−31.37	1981.09	0.388	0.0191
		[0.08]	[0.20]	[0.38]	[0.54]	[14.41]	[1969.09,1999.12]		
LHUR	12	170.69	257.42	209.39	296.36	41.53	1974.08	0.295	7.41E-005
		[0.64]	[1.57]	[30.19]	[27.18]	[24.19]	[1960.02,1989.05]		
LHU680	7	525.26	523.66	885.69	460.14	−48.05	1965.12	0.0639	0.978
		[1.03]	[2.56]	[138.17]	[57.87]	[10.41]	[1962.05,1975.06]		
LHU5	12	46.84	61.83	72.45	35.00	−51.69	1981.12	0.0264	0.00993
		[0.33]	[0.81]	[6.31]	[10.03]	[14.46]	[1977.07,1989.12]		
LHU14	5	57.83	72.67	90.68	42.41	−53.23	1980.06	0.00166	0.0210
		[0.34]	[0.85]	[7.41]	[9.60]	[11.25]	[1977.12,1987.02]		
LHU15	4	56.37	73.02	92.54	44.10	−52.35	1980.04	0.000700	0.00734
		[0.34]	[0.84]	[7.32]	[8.91]	[10.34]	[1977.04,1985.10]		
LHU26	4	88.91	98.63	120.91	65.63	−45.72	1980.04	0.0240	0.293
		[0.41]	[1.02]	[10.99]	[13.37]	[12.11]	[1974.06,1989.01]		
LHU27	7	76.18	86.93	108.47	55.03	−49.27	1980.04	0.0208	0.223
		[0.40]	[1.00]	[10.46]	[12.74]	[12.72]	[1977.03,1991.04]		
LHCH	12	214.40	189.97	203.36	113.69	−44.10	1982.09	0.787	0.324
		[0.72]	[1.66]	[24.54]	[58.58]	[29.59]	[1961.09,1995.02]		

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Series	p	σ_E	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	1.68	2.66	3.02	1.00	−67.00	1982.07	0.00561	2.86E-005
		[0.07]	[0.16]	[0.23]	[0.50]	[16.84]	[1981.05,1987.12]		
LP	3	1.95	3.12	3.90	2.31	−40.75	1974.12	0.0304	2.66E-005
		[0.07]	[0.18]	[0.36]	[0.36]	[10.80]	[1971.04,1989.05]		
LPGD	3	3.46	6.06	6.52	3.09	−52.55	1982.10	0.202	1.60E-006
		[0.10]	[0.25]	[0.54]	[1.36]	[21.27]	[1981.05,1993.08]		
LPMI	12	7.90	10.14	11.56	3.63	−68.62	1982.07	0.0686	0.0560
		[0.15]	[0.37]	[1.19]	[2.56]	[22.34]	[1978.12,1990.02]		
LPCC	5	9.64	13.94	15.45	7.64	−50.60	1982.06	0.250	0.00423
		[0.17]	[0.41]	[1.54]	[3.15]	[20.96]	[1979.11,1998.02]		
LPEM	3	2.93	5.75	6.18	3.01	−51.19	1982.10	0.305	3.11E-007
		[0.10]	[0.25]	[0.55]	[1.39]	[22.86]	[1980.12,1995.10]		
LPED	5	3.93	8.33	9.91	5.84	−41.09	1980.05	0.114	1.07E-007
		[0.12]	[0.31]	[0.97]	[1.22]	[13.63]	[1977.01,1998.07]		
LPEN	2	2.40	4.50	4.92	1.44	−70.70	1982.11	0.00954	2.39E-009
		[0.08]	[0.20]	[0.34]	[0.94]	[19.12]	[1982.02,1987.03]		
LPSP	6	1.34	2.12	2.49	1.31	−47.18	1981.10	0.0102	5.61E-006
		[0.06]	[0.14]	[0.19]	[0.28]	[11.96]	[1978.10,1989.08]		
LPTU	12	4.37	5.42	6.26	4.01	−35.87	1980.06	0.607	0.140
		[0.11]	[0.28]	[0.83]	[1.07]	[19.10]	[1960.02,1999.12]		
LPT	12	2.15	3.21	3.95	2.10	−46.97	1980.04	0.00549	0.000108
		[0.07]	[0.18]	[0.32]	[0.39]	[10.84]	[1978.02,1989.04]		
LPFR	10	1.35	1.31	1.55	0.95	−38.84	1980.04	0.272	0.795
		[0.05]	[0.13]	[0.18]	[0.21]	[15.37]	[1969.10,1999.12]		
LPS	10	1.79	2.31	2.96	2.06	−30.46	1970.09	0.338	0.0146
		[0.06]	[0.16]	[0.37]	[0.23]	[11.72]	[1960.02,1985.03]		
LPGOV	12	2.12	3.87	3.14	4.83	53.67	1980.02	0.127	7.67E-007
		[0.08]	[0.20]	[0.43]	[0.50]	[26.48]	[1968.04,1991.07]		
LW	4	113.17	150.87	180.67	80.75	−55.31	1982.02	0.0261	0.0165
		[0.55]	[1.39]	[17.24]	[26.44]	[15.24]	[1978.06,1989.11]		
LPHRM	12	216.90	342.51	405.03	158.65	−60.83	1982.02	0.00560	9.27E-005
		[0.77]	[1.91]	[34.03]	[58.36]	[14.78]	[1980.11,1989.04]		
LPMOSA	12	129.97	178.51	204.95	78.42	−61.74	1982.05	0.0206	0.00498
		[0.56]	[1.40]	[17.83]	[34.69]	[17.25]	[1979.10,1989.03]		
Wages and salaries									
LEH	12	2.25	3.00	3.88	2.08	−46.28	1980.03	0.0268	0.0165
		[0.08]	[0.20]	[0.40]	[0.41]	[11.83]	[1977.07,1992.02]		
LEHCC	11	5.30	6.75	4.27	8.63	102.04	1974.07	0.0128	0.0367
		[0.11]	[0.28]	[0.97]	[0.84]	[49.79]	[1968.12,1982.09]		
LEHM	11	3.12	4.31	4.83	2.77	−42.56	1982.02	0.204	0.00420
		[0.09]	[0.22]	[0.44]	[0.76]	[16.60]	[1976.11,1997.07]		
LEHTU	11	4.16	3.79	4.60	2.59	−43.73	1981.08	0.461	0.514
		[0.11]	[0.27]	[0.69]	[0.83]	[19.96]	[1973.01,1999.12]		
LEHTT	9	2.62	3.31	4.17	1.72	−58.65	1981.11	0.00177	0.0330
		[0.08]	[0.20]	[0.36]	[0.50]	[12.46]	[1979.11,1987.12]		
LEHFR	12	4.50	5.05	3.45	5.68	64.81	1974.04	0.375	0.304
		[0.10]	[0.26]	[0.95]	[0.59]	[48.45]	[1965.02,1988.01]		
LEHS	12	2.98	3.62	4.17	2.09	−49.86	1982.04	0.137	0.101
		[0.09]	[0.22]	[0.42]	[0.71]	[17.71]	[1978.06,1995.01]		
Construction									
HSFR	12	80.03	114.91	102.84	130.72	27.11	1980.02	0.679	0.000266
		[0.42]	[1.04]	[11.75]	[13.45]	[19.55]	[1960.02,1999.12]		
HSNE	4	173.20	252.61	241.10	369.62	53.30	1990.09	0.451	0.000170
		[0.62]	[1.55]	[20.45]	[65.21]	[30.01]	[1987.03,1999.05]		
HSMW	3	158.55	185.20	173.50	434.79	150.60	1990.12	0.0409	0.173
		[0.60]	[1.49]	[18.38]	[84.91]	[55.68]	[1990.01,1992.09]		
HSSOU	12	94.72	132.58	106.81	166.36	55.76	1980.02	0.0576	0.000676
		[0.45]	[1.12]	[13.60]	[15.57]	[24.61]	[1970.03,1988.07]		
HSWST	2	127.12	171.60	182.50	130.34	−28.58	1982.05	0.589	0.00109
		[0.50]	[1.24]	[14.16]	[27.56]	[16.09]	[1967.04,1999.12]		
HSBR	2	63.30	98.52	61.15	120.76	97.47	1974.03	0.00255	1.60E-005
		[0.39]	[0.96]	[12.20]	[9.42]	[42.31]	[1968.09,1978.02]		
HSBNE	4	118.29	151.48	162.71	81.32	−50.02	1982.11	0.454	0.0386
		[0.53]	[1.40]	[16.11]	[40.28]	[25.25]	[1976.06,1996.03]		
HSBMW	12	102.85	150.37	121.81	177.01	45.31	1975.03	0.385	0.00145
		[0.51]	[1.35]	[20.02]	[19.34]	[28.67]	[1961.02,1989.05]		
HSBSOU	12	76.32	108.51	74.63	121.42	62.70	1974.03	0.244	0.00130
		[0.42]	[1.11]	[17.74]	[10.95]	[41.37]	[1961.02,1983.04]		
HSBWST	1	93.83	145.46	22.95	154.54	573.36	1970.03	0.0671	5.01E-005
		[0.47]	[1.25]	[45.00]	[12.25]	[1321.35]	[1967.03,1971.06]		
HNS	2	77.63	123.78	83.71	157.38	88.01	1975.02	0.000426	7.16E-007
		[0.42]	[1.07]	[12.57]	[11.51]	[31.40]	[1971.03,1978.08]		
HNSNE	12	171.95	229.33	139.30	275.90	98.06	1980.02	0.0446	0.0160
		[0.74]	[1.82]	[37.27]	[26.80]	[56.37]	[1974.03,1983.06]		
HNSMW	11	122.04	176.54	167.32	302.60	80.86	1990.12	0.362	0.00294
		[0.65]	[1.60]	[17.48]	[64.61]	[42.99]	[1988.02,1994.05]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	96.58	146.00	119.89	158.19	31.94	1977.11	0.771	0.000239
		[0.56]	[1.37]	[22.03]	[15.05]	[27.30]	[1974.02,1998.11]		
HNSWST	12	118.29	182.46	228.98	115.26	−49.66	1982.01	0.0128	0.000388
		[0.65]	[1.59]	[21.40]	[25.72]	[12.18]	[1978.06,1987.08]		
HNR	4	519.05	1031.67	675.10	1330.73	97.12	1975.02	4.20E-006	5.62E-014
		[1.13]	[2.90]	[91.13]	[83.46]	[29.34]	[1972.03,1976.12]		
HMOB	3	47.43	85.76	104.40	50.10	−52.02	1981.08	0.000159	8.07E-010
		[0.34]	[0.84]	[6.99]	[9.67]	[9.80]	[1980.03,1986.10]		
CONTC	1	17.01	26.33	30.19	21.01	−30.41	1980.07	0.252	2.35E-005
		[0.21]	[0.52]	[2.68]	[3.14]	[12.09]	[1973.06,1999.12]		
CONPC	6	17.46	21.06	24.32	17.18	−29.36	1980.05	0.557	0.105
		[0.21]	[0.52]	[2.79]	[3.05]	[14.92]	[1967.12,1999.12]		
CONQC	2	34.24	43.55	41.69	77.13	85.02	1990.12	0.389	0.0313
		[0.29]	[0.73]	[4.11]	[17.45]	[45.67]	[1988.09,1995.01]		
CONDO9	9	87.91	117.97	52.96	132.15	149.56	1970.02	0.0329	0.00503
		[0.44]	[1.10]	[23.26]	[10.86]	[111.50]	[1964.07,1973.03]		
Trade									
MSMTQ	12	10.76	14.34	11.78	16.29	38.32	1974.07	0.375	0.00316
		[0.15]	[0.37]	[1.70]	[1.48]	[23.61]	[1960.02,1992.02]		
MSMQ	12	14.63	18.64	15.37	21.64	40.82	1974.10	0.373	0.0178
		[0.18]	[0.44]	[2.26]	[2.16]	[25.07]	[1960.02,1996.01]		
MSDQ	12	21.07	26.16	20.54	31.30	52.36	1974.10	0.202	0.0411
		[0.21]	[0.53]	[3.32]	[3.18]	[29.11]	[1963.09,1993.05]		
MSNQ	3	11.92	16.41	17.11	1.33	−92.23	1990.12	0.120	0.00108
		[0.16]	[0.39]	[1.29]	[5.98]	[34.94]	[1989.09,1993.04]		
WTQ	3	15.31	18.65	13.53	20.98	55.04	1970.11	0.314	0.0605
		[0.18]	[0.45]	[2.93]	[1.98]	[36.63]	[1960.02,1985.08]		
WTDQ	5	16.97	21.94	17.62	24.86	41.11	1974.05	0.395	0.0111
		[0.19]	[0.47]	[2.85]	[2.34]	[26.38]	[1960.02,1991.07]		
WTNQ	4	20.68	25.16	16.56	28.56	72.50	1970.09	0.130	0.0521
		[0.21]	[0.51]	[3.99]	[2.51]	[44.27]	[1961.01,1980.07]		
RTQ	11	12.01	18.53	12.68	22.99	81.37	1974.07	0.00602	2.34E-005
		[0.17]	[0.42]	[2.14]	[1.87]	[34.02]	[1968.11,1980.08]		
RTDQ	2	27.16	43.42	33.30	51.63	55.01	1974.08	0.0925	9.68E-006
		[0.26]	[0.65]	[5.06]	[4.55]	[27.22]	[1965.05,1987.02]		
RTNQ	12	8.34	10.57	11.83	8.72	−26.26	1980.04	0.536	0.0173
		[0.13]	[0.33]	[1.12]	[1.37]	[13.50]	[1969.03,1999.12]		
Inventories									
IVMTQ	3	3.65	5.82	4.73	6.64	40.35	1974.07	0.109	3.28E-008
		[0.08]	[0.21]	[0.55]	[0.48]	[19.14]	[1966.04,1989.10]		
IVMFGQ	12	3.82	4.76	6.43	4.28	−33.51	1970.05	0.231	0.0280
		[0.09]	[0.22]	[0.84]	[0.45]	[11.11]	[1961.04,1983.08]		
IVMFDQ	12	4.93	6.18	8.01	5.45	−31.90	1970.09	0.277	0.0291
		[0.10]	[0.25]	[0.99]	[0.63]	[11.50]	[1962.05,1994.04]		
IVMFNQ	2	5.10	5.97	5.63	7.04	24.95	1982.03	0.944	0.120
		[0.10]	[0.25]	[0.59]	[1.06]	[22.97]	[1960.02,1999.12]		
IVWRQ	12	7.28	11.37	18.81	10.06	−46.52	1965.12	0.00112	1.08E-006
		[0.12]	[0.31]	[1.98]	[0.83]	[7.14]	[1963.06,1968.03]		
IVRRQ	12	7.92	10.41	10.19	17.48	71.49	1991.01	0.739	0.00605
		[0.13]	[0.32]	[0.85]	[4.85]	[49.70]	[1988.09,1995.11]		
IVSRQ	12	15.37	21.31	15.16	26.30	73.53	1974.08	0.0109	0.000706
		[0.18]	[0.45]	[2.40]	[2.16]	[30.98]	[1966.12,1979.03]		
IVSRMQ	12	23.22	28.30	20.47	35.46	73.25	1974.10	0.0426	0.0619
		[0.22]	[0.56]	[3.62]	[3.46]	[35.00]	[1966.03,1983.07]		
IVSRWQ	2	19.79	23.92	17.47	29.48	68.72	1974.09	0.0456	0.0594
		[0.20]	[0.50]	[2.97]	[2.75]	[32.68]	[1965.01,1982.01]		
IVSRRQ	5	19.06	25.36	14.97	32.82	119.29	1974.06	0.00266	0.0117
		[0.21]	[0.53]	[3.53]	[2.99]	[55.50]	[1968.02,1977.09]		
Orders									
MOCMQ	12	25.98	36.23	28.60	41.07	43.59	1974.04	0.259	0.000577
		[0.23]	[0.58]	[4.41]	[3.51]	[25.31]	[1962.02,1993.08]		
MDOQ	6	33.47	47.59	34.63	58.10	67.78	1974.08	0.0125	0.000160
		[0.26]	[0.65]	[5.12]	[4.61]	[28.16]	[1968.01,1981.04]		
MSONDQ	9	71.16	85.95	55.72	105.11	88.63	1974.04	0.0186	0.0647
		[0.38]	[0.95]	[11.78]	[9.38]	[43.29]	[1969.03,1983.12]		
MO	6	20.55	29.30	22.17	34.75	56.71	1974.07	0.0298	5.70E-005
		[0.20]	[0.50]	[3.03]	[2.65]	[24.56]	[1966.05,1981.11]		
MOWU	6	29.12	39.79	28.43	48.99	72.31	1974.08	0.00950	0.000855
		[0.24]	[0.60]	[4.38]	[3.94]	[29.93]	[1968.01,1980.07]		
MDO	6	33.27	48.26	36.63	57.70	57.50	1974.08	0.0295	4.06E-005
		[0.26]	[0.64]	[5.01]	[4.51]	[24.82]	[1966.12,1982.09]		
MDUWU	6	35.13	47.98	34.95	58.55	67.53	1974.08	0.0187	0.00101
		[0.27]	[0.67]	[5.35]	[4.82]	[29.13]	[1967.07,1981.11]		
MNO	12	12.06	17.81	11.33	20.57	81.47	1970.10	0.0350	0.000129
		[0.17]	[0.41]	[2.52]	[1.65]	[42.95]	[1962.02,1974.03]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	19.93	23.47	24.18	12.39	−48.76	1990.11	0.730	0.0798
		[0.19]	[0.48]	[1.93]	[7.66]	[31.96]	[1985.12,1999.11]		
MU	3	7.55	8.87	7.33	9.97	36.07	1974.06	0.565	0.108
		[0.12]	[0.31]	[1.17]	[1.00]	[25.69]	[1960.02,1999.12]		
MDU	3	7.86	9.14	7.80	10.11	29.67	1974.06	0.770	0.134
		[0.13]	[0.31]	[1.23]	[1.04]	[24.40]	[1960.02,1999.12]		
MNU	12	16.60	20.76	21.68	6.15	−71.64	1990.11	0.268	0.0225
		[0.18]	[0.45]	[1.73]	[6.87]	[31.77]	[1988.04,1994.12]		
MPCON	5	74.34	87.11	36.92	95.92	159.78	1965.12	0.0419	0.0941
		[0.37]	[0.93]	[18.14]	[7.60]	[129.29]	[1960.09,1967.08]		
MPCONQ	9	73.41	85.59	37.97	93.95	147.43	1965.12	0.0466	0.0966
		[0.37]	[0.91]	[17.44]	[7.31]	[115.28]	[1960.08,1967.12]		
Consumption									
GMCQ	8	5.81	8.43	7.94	13.44	69.32	1990.09	0.185	0.000254
		[0.11]	[0.28]	[0.69]	[2.20]	[31.44]	[1988.06,1996.02]		
GMCDQ	8	27.57	40.43	28.94	49.19	69.96	1974.07	0.0265	0.000201
		[0.25]	[0.63]	[4.83]	[4.22]	[31.86]	[1965.10,1980.06]		
GMCNQ	12	7.06	8.27	6.56	9.05	37.97	1970.11	0.735	0.148
		[0.12]	[0.31]	[1.39]	[0.94]	[32.55]	[1960.02,1999.12]		
GMCSQ	10	3.38	4.24	3.07	5.25	71.31	1974.09	0.0749	0.0426
		[0.09]	[0.22]	[0.58]	[0.54]	[36.66]	[1961.08,1979.12]		
GMCANQ	5	69.21	115.67	68.02	134.53	97.79	1970.09	0.0158	2.22E-006
		[0.43]	[1.05]	[16.90]	[10.63]	[51.57]	[1963.04,1972.10]		
Money and credit									
FM1	9	4.33	4.87	3.29	6.81	106.98	1975.03	0.00385	0.290
		[0.10]	[0.24]	[0.63]	[0.70]	[44.79]	[1967.09,1977.10]		
FM2	12	2.27	2.62	2.84	1.91	−32.64	1982.03	0.736	0.232
		[0.07]	[0.18]	[0.31]	[0.54]	[20.51]	[1960.02,1999.12]		
FM3	8	2.42	2.85	3.85	2.48	−35.55	1970.08	0.206	0.131
		[0.07]	[0.18]	[0.50]	[0.30]	[11.54]	[1960.04,1983.09]		
FML	12	3.38	2.98	1.60	3.23	101.25	1965.10	0.445	0.231
		[0.08]	[0.19]	[0.79]	[0.33]	[101.64]	[1960.02,1972.02]		
FM2DQ	10	2.78	3.78	2.47	4.04	63.62	1970.01	0.464	0.00320
		[0.08]	[0.20]	[0.77]	[0.34]	[53.00]	[1960.02,1975.01]		
FMFBA	11	2.57	2.33	2.17	5.67	161.46	1990.12	0.0762	0.401
		[0.07]	[0.18]	[0.27]	[1.24]	[65.44]	[1988.11,1992.08]		
FMBASE	12	3.96	3.87	2.36	4.30	82.40	1970.05	0.375	0.836
		[0.09]	[0.22]	[0.86]	[0.46]	[69.06]	[1960.02,1981.06]		
FMRRA	11	10.27	9.08	8.12	13.08	61.16	1982.06	0.369	0.261
		[0.14]	[0.35]	[1.09]	[2.22]	[34.83]	[1967.11,1992.03]		
FMRNBA	1	16.62	24.14	29.09	15.83	−45.58	1980.06	0.0668	0.00233
		[0.21]	[0.53]	[2.87]	[3.72]	[13.86]	[1968.12,1987.03]		
FMRNBC	1	14.23	21.25	13.69	23.25	69.82	1970.04	0.279	0.000329
		[0.20]	[0.47]	[3.92]	[2.01]	[50.77]	[1960.02,1973.07]		
FCLS	2	3.80	4.06	5.35	3.17	−40.77	1980.05	0.278	0.619
		[0.11]	[0.27]	[0.77]	[0.64]	[14.72]	[1974.02,1988.03]		
FCSGV	3	9.13	13.71	16.63	7.46	−55.16	1982.05	0.0119	0.000838
		[0.18]	[0.44]	[1.51]	[2.21]	[13.93]	[1979.06,1987.08]		
FCLRE	3	2.90	2.67	3.35	2.10	−37.14	1980.07	0.745	0.617
		[0.10]	[0.25]	[0.62]	[0.57]	[20.67]	[1974.02,1994.12]		
FCLIN	3	3.80	4.87	4.36	11.92	173.54	1990.12	0.00660	0.0673
		[0.12]	[0.29]	[0.55]	[2.03]	[57.90]	[1989.04,1991.08]		
FCLNBF	1	19.00	18.89	24.28	13.50	−44.37	1981.09	0.235	0.966
		[0.29]	[0.60]	[3.37]	[3.37]	[15.87]	[1974.02,1987.06]		
FCLNQ	7	8.58	10.51	7.26	11.80	62.62	1970.09	0.220	0.0461
		[0.13]	[0.33]	[1.67]	[1.05]	[40.24]	[1960.02,1977.01]		
FCLBMC	8	30201.62	24896.10	13149.94	41256.83	213.74	1980.03	0.0226	0.259
		[9.31]	[23.08]	[5653.15]	[6671.82]	[144.10]	[1967.07,1982.04]		
CCI30M	12	84.36	75.12	44.77	104.59	133.63	1974.11	0.0564	0.417
		[0.49]	[1.13]	[14.75]	[14.53]	[83.56]	[1961.12,1977.03]		
CCINT	8	2319996.44	2708509.87	1844705.39	6163727.83	234.13	1990.09	0.000725	0.395
		[106.57]	[279.26]	[460733.31]	[921466.62]	[97.26]	[1988.09,1991.11]		
CCINV	7	1155152.24	1301824.38	881806.44	2281866.24	158.77	1982.10	0.0222	0.501
		[73.57]	[192.79]	[238140.40]	[363765.46]	[81.15]	[1978.08,1984.04]		
Stock prices									
FSNCOM	2	33.68	59.18	38.44	64.17	66.95	1970.03	0.107	1.24E-009
		[0.28]	[0.69]	[8.77]	[4.31]	[39.72]	[1962.04,1975.05]		
FSNIN	2	35.18	66.03	67.05	8.65	−87.10	1991.02	0.573	2.55E-010
		[0.32]	[0.77]	[4.54]	[33.94]	[50.63]	[1990.03,1993.01]		
FSNTR	2	50.27	85.93	88.96	64.28	−27.74	1990.08	0.801	1.53E-008
		[0.36]	[0.88]	[6.21]	[16.59]	[19.32]	[1980.10,1999.12]		
FSNUT	5	31.94	50.47	60.73	38.23	−37.04	1980.05	0.0226	1.21E-006
		[0.28]	[0.68]	[4.73]	[5.16]	[9.81]	[1976.01,1988.12]		
FSNFI	2	46.26	79.85	91.75	70.55	−23.11	1975.01	0.429	1.84E-008
		[0.35]	[0.86]	[8.30]	[7.34]	[10.60]	[1967.02,1997.07]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	33.49	57.71	46.97	65.42	39.29	1974.06	0.181	4.34E-009
		[0.28]	[0.68]	[5.88]	[4.98]	[20.42]	[1960.11,1986.11]		
FSPIN	2	33.94	59.23	47.09	67.95	44.30	1974.06	0.104	2.18E-009
		[0.28]	[0.69]	[6.02]	[5.10]	[21.40]	[1962.12,1984.02]		
FSPCAP	1	40.60	67.74	38.90	75.35	93.72	1970.04	0.0213	5.55E-008
		[0.30]	[0.75]	[10.03]	[5.15]	[51.66]	[1964.10,1974.01]		
FSPTR	2	49.85	82.91	87.27	58.64	−32.80	1990.08	0.632	1.24E-006
		[0.38]	[0.97]	[6.87]	[16.22]	[19.32]	[1983.03,1999.12]		
FSPUT	5	33.77	52.10	60.55	39.60	−34.60	1980.04	0.0417	8.73E-007
		[0.26]	[0.65]	[4.43]	[5.39]	[10.11]	[1974.06,1990.12]		
FSPFI	2	51.37	83.24	74.97	109.54	46.12	1982.08	0.195	2.54E-006
		[0.38]	[0.96]	[7.18]	[12.80]	[22.07]	[1975.02,1989.10]		
Dividends and volume									
FSDXP	1	35.94	61.72	40.11	67.43	68.11	1970.04	0.101	1.37E-008
		[0.29]	[0.72]	[9.14]	[4.70]	[40.08]	[1961.08,1974.07]		
FSPXE	4	41.13	63.69	39.81	68.90	73.08	1970.02	0.187	9.23E-006
		[0.31]	[0.76]	[11.08]	[5.18]	[49.91]	[1960.12,1975.10]		
FSNVV3	12	31.82	38.86	48.30	10.55	−78.15	1982.11	0.0247	0.206
		[0.35]	[0.96]	[5.93]	[10.26]	[21.42]	[1981.11,1990.01]		
Interest rates									
FYFF	12	362.97	961.96	663.88	1189.43	79.16	1974.07	0.00219	2.28E-016
		[1.16]	[2.88]	[101.29]	[88.48]	[30.41]	[1967.08,1976.08]		
FYCP	12	383.04	830.86	349.88	1021.24	191.89	1970.09	9.71E-007	1.73E-013
		[1.09]	[2.62]	[101.86]	[64.09]	[86.93]	[1967.12,1971.02]		
FYGM3	12	315.79	850.35	441.00	1024.54	132.32	1970.10	3.62E-006	6.50E-022
		[1.01]	[2.51]	[91.63]	[59.77]	[50.14]	[1967.08,1971.05]		
FYGM6	12	314.39	803.17	450.55	953.22	111.57	1970.10	2.79E-005	2.70E-021
		[0.97]	[2.42]	[85.44]	[55.73]	[41.98]	[1967.03,1971.10]		
FYGT1	12	358.49	763.00	539.71	1038.39	92.40	1975.03	3.25E-006	3.60E-015
		[0.97]	[2.41]	[62.33]	[69.22]	[25.65]	[1971.09,1976.11]		
FYGT5	6	307.11	516.65	339.05	710.90	109.68	1975.01	1.51E-005	2.58E-007
		[0.87]	[2.15]	[50.85]	[53.18]	[35.14]	[1970.12,1976.09]		
FYGT10	12	256.80	400.89	228.23	601.40	163.51	1975.02	8.97E-008	3.28E-005
		[0.80]	[1.98]	[42.34]	[45.63]	[52.81]	[1972.02,1976.02]		
FYAAAC	12	187.13	277.60	150.99	433.75	187.27	1975.03	5.92E-007	0.00106
		[0.71]	[1.77]	[33.38]	[37.07]	[68.10]	[1971.09,1976.02]		
FYBAAC	4	174.79	262.01	119.12	418.30	251.15	1975.01	1.61E-009	0.000586
		[0.68]	[1.70]	[31.15]	[32.58]	[95.82]	[1972.05,1975.09]		
FWAFIT	3	270.98	475.91	640.12	278.85	−56.44	1981.11	0.000549	2.27E-005
		[1.21]	[2.57]	[57.17]	[62.63]	[10.53]	[1980.11,1985.11]		
FYFHA	4	258.73	358.65	157.28	554.10	252.30	1974.11	9.47E-006	0.0193
		[0.89]	[2.20]	[54.92]	[54.11]	[127.74]	[1970.05,1975.08]		
Exchange rates									
EXRUS	2	18.46	23.41	21.39	86.11	302.59	1991.02	0.00114	0.0987
		[0.25]	[0.71]	[2.81]	[15.62]	[90.11]	[1990.10,1991.08]		
EXRGER	1	29.65	30.84	27.24	142.24	422.12	1991.02	1.60E-005	0.787
		[0.30]	[0.86]	[4.03]	[22.45]	[112.97]	[1990.11,1991.06]		
EXRSW	1	32.70	41.07	37.84	141.13	272.98	1991.02	0.00236	0.0951
		[0.32]	[0.92]	[4.70]	[26.15]	[83.17]	[1990.09,1991.08]		
EXRJAN	3	30.06	37.79	36.16	88.47	144.68	1991.02	0.347	0.103
		[0.31]	[0.89]	[4.52]	[25.16]	[76.00]	[1989.08,1992.07]		
EXRUK	3	26.04	28.47	25.58	118.10	361.73	1991.02	0.00115	0.572
		[0.29]	[0.85]	[4.01]	[22.34]	[113.47]	[1990.09,1991.07]		
EXRCAN	12	11.75	11.17	12.37	6.00	−51.50	1990.09	0.596	0.713
		[0.18]	[0.51]	[1.65]	[3.43]	[28.46]	[1979.04,1999.12]		
Producer prices									
PWFSA	9	4.06	5.67	5.39	10.13	87.94	1990.11	0.259	0.00335
		[0.10]	[0.25]	[0.52]	[2.08]	[42.68]	[1989.05,1995.04]		
PWFCSA	9	5.15	6.72	6.37	12.17	90.85	1990.11	0.233	0.0164
		[0.11]	[0.27]	[0.62]	[2.48]	[43.11]	[1989.01,1994.12]		
PWIMSA	4	3.90	7.06	3.87	8.52	120.20	1970.11	0.00203	1.43E-007
		[0.11]	[0.26]	[0.98]	[0.66]	[58.40]	[1965.01,1972.02]		
PWCMSA	11	20.23	30.10	23.68	77.44	226.99	1982.11	5.14E-011	0.000366
		[0.23]	[0.56]	[2.60]	[7.07]	[46.70]	[1981.12,1983.05]		
PWFXSA	9	4.30	5.81	5.05	10.44	106.47	1982.11	0.0161	0.0145
		[0.11]	[0.27]	[0.61]	[1.50]	[38.67]	[1979.09,1985.03]		
PW160A	12	17.02	17.71	32.70	12.71	−61.14	1980.07	0.00505	0.787
		[0.23]	[0.65]	[4.71]	[2.72]	[10.02]	[1978.06,1984.11]		
PW150A	9	16.26	18.18	23.89	13.15	−44.95	1982.02	0.338	0.488
		[0.24]	[0.68]	[3.79]	[3.56]	[17.30]	[1977.06,1999.12]		
PW561	5	46.59	55.60	25.04	280.97	1022.14	1982.11	5.12E-027	0.317
		[0.41]	[1.01]	[7.93]	[21.54]	[365.71]	[1982.03,1982.12]		
PWCM	9	5.26	4.94	2.78	5.80	108.64	1970.09	0.221	0.625
		[0.11]	[0.27]	[1.11]	[0.70]	[87.29]	[1960.02,1985.02]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	4.29	7.01	5.88	13.93	136.67	1982.11	1.73E-005	1.21E-005
		[0.12]	[0.28]	[0.60]	[1.48]	[34.88]	[1981.09,1984.03]		
PSM99Q	12	13.91	17.14	10.21	20.31	98.98	1970.11	0.0205	0.0399
		[0.17]	[0.42]	[2.58]	[1.74]	[53.09]	[1963.02,1974.04]		
PSCCOM	12	19.24	22.70	9.03	28.94	220.56	1970.11	0.000342	0.136
		[0.21]	[0.51]	[3.77]	[2.55]	[136.88]	[1966.02,1971.11]		
PSCFOO	12	28.67	37.20	20.36	44.37	117.93	1970.10	0.0192	0.0199
		[0.26]	[0.64]	[6.15]	[4.01]	[68.75]	[1962.11,1973.01]		
PSCMAT	6	19.73	24.22	11.58	29.99	159.08	1970.11	0.000882	0.0471
		[0.20]	[0.51]	[3.68]	[2.49]	[85.17]	[1966.04,1973.06]		
PZFR	6	20.46	22.37	35.28	19.14	−45.76	1980.07	0.272	0.545
		[0.25]	[0.74]	[6.61]	[3.31]	[13.82]	[1976.02,1989.10]		
PCGOLD	7	45.28	74.85	87.50	24.29	−72.24	1990.09	0.0397	0.00101
		[0.43]	[1.25]	[9.36]	[18.73]	[21.61]	[1988.12,1995.02]		
Consumer prices									
PUNEW	9	1.94	2.84	1.62	3.78	133.36	1974.07	7.05E-005	0.000275
		[0.07]	[0.17]	[0.34]	[0.30]	[52.90]	[1971.03,1978.02]		
PU81	12	3.86	4.85	7.03	3.57	−49.19	1974.09	0.0192	0.0791
		[0.11]	[0.26]	[0.84]	[0.64]	[10.97]	[1971.10,1986.11]		
PUH	9	2.13	3.91	2.98	5.03	69.02	1980.05	0.0195	2.29E-007
		[0.09]	[0.21]	[0.43]	[0.46]	[28.75]	[1973.06,1984.08]		
PU83	6	3.80	3.58	2.34	4.18	79.14	1973.12	0.344	0.622
		[0.09]	[0.23]	[0.74]	[0.52]	[60.77]	[1960.02,1980.03]		
PU84	8	5.37	7.08	5.54	11.25	102.95	1982.01	0.00150	0.0137
		[0.11]	[0.28]	[0.74]	[1.22]	[34.83]	[1976.07,1984.06]		
PU85	6	2.07	2.35	2.90	1.63	−43.62	1980.02	0.241	0.352
		[0.07]	[0.18]	[0.37]	[0.42]	[16.28]	[1976.08,1999.12]		
PUC	9	3.03	3.95	3.31	5.82	75.70	1982.02	0.0292	0.0154
		[0.08]	[0.21]	[0.40]	[0.69]	[29.94]	[1975.04,1987.06]		
PUCD	12	2.61	3.63	2.96	4.03	36.00	1974.03	0.474	0.000728
		[0.07]	[0.19]	[0.46]	[0.35]	[24.15]	[1960.02,1999.12]		
PUS	9	2.12	3.39	2.56	4.35	70.09	1975.02	0.0165	1.51E-005
		[0.07]	[0.18]	[0.37]	[0.40]	[28.93]	[1966.05,1979.08]		
PUXF	9	2.14	3.10	1.99	4.06	104.00	1974.09	0.000150	0.000115
		[0.07]	[0.17]	[0.33]	[0.31]	[37.43]	[1970.05,1977.08]		
PUXHS	12	2.46	2.97	2.61	4.03	54.09	1982.02	0.173	0.0655
		[0.07]	[0.18]	[0.29]	[0.51]	[26.01]	[1972.12,1992.12]		
PUXM	9	2.24	3.02	2.32	4.21	81.34	1980.06	0.00323	0.00277
		[0.07]	[0.17]	[0.30]	[0.39]	[29.12]	[1975.10,1985.11]		
GMDC	9	1.47	2.25	1.34	2.66	98.03	1970.11	0.00347	1.19E-005
		[0.06]	[0.14]	[0.29]	[0.19]	[44.93]	[1965.02,1973.06]		
GMDCD	12	2.54	3.44	2.24	3.88	72.87	1970.08	0.165	0.00533
		[0.08]	[0.19]	[0.57]	[0.35]	[46.83]	[1960.06,1980.12]		
GMDCN	9	2.85	3.86	2.60	4.44	70.49	1970.11	0.166	0.00753
		[0.08]	[0.21]	[0.62]	[0.42]	[44.00]	[1960.02,1975.12]		
GMDCS	9	1.33	1.73	0.92	2.11	128.88	1970.11	0.00295	0.00995
		[0.05]	[0.13]	[0.26]	[0.17]	[66.58]	[1964.11,1972.08]		
Miscellaneous									
PMI	12	2636.15	3321.67	4136.27	1407.38	−65.97	1981.11	0.000249	0.0265
		[2.39]	[5.92]	[335.17]	[513.80]	[12.72]	[1979.09,1986.03]		
PMP	12	3932.71	4097.56	4956.52	2216.05	−55.29	1981.10	0.0397	0.719
		[2.91]	[7.21]	[508.21]	[752.17]	[15.85]	[1975.11,1990.05]		
PMNO	4	4172.36	4717.93	5614.81	2452.14	−56.33	1981.12	0.0371	0.285
		[3.07]	[7.60]	[553.53]	[879.79]	[16.25]	[1977.04,1990.08]		
PMDEL	12	3262.54	4785.15	5976.90	2174.64	−63.62	1981.10	0.00145	0.00156
		[2.98]	[7.38]	[529.90]	[784.26]	[13.51]	[1980.11,1988.10]		
PMNV	12	3447.69	3832.80	4378.59	2093.07	−52.20	1982.03	0.0787	0.316
		[2.66]	[6.60]	[404.89]	[722.87]	[17.09]	[1978.02,1992.06]		
PMEMP	12	2917.84	3745.91	4167.22	2755.83	−33.87	1981.11	0.322	0.0134
		[2.48]	[6.16]	[368.92]	[565.55]	[14.78]	[1970.07,1999.08]		
PMCP	12	4295.03	5220.32	4745.23	9292.48	95.83	1990.08	0.0639	0.0822
		[3.13]	[7.77]	[517.40]	[1514.80]	[38.41]	[1988.04,1994.10]		
HHSNTN	0	3763.40	4841.70	4412.74	33153.12	651.30	1991.02	5.28E-014	0.0302
		[3.03]	[7.51]	[436.41]	[3545.45]	[109.44]	[1990.11,1991.03]		
F6EDM	12	63.75	59.98	77.57	48.92	−36.93	1974.10	0.509	0.653
		[0.40]	[1.02]	[12.51]	[9.92]	[16.33]	[1965.02,1999.12]		
FTMC6	12	102.66	140.54	56.76	162.89	186.98	1973.12	0.00370	0.00273
		[0.51]	[1.24]	[25.05]	[12.93]	[128.67]	[1970.04,1975.10]		
FTMM6	5	59.43	81.73	60.97	97.96	60.67	1975.01	0.268	0.0138
		[0.42]	[1.06]	[12.63]	[11.17]	[38.00]	[1966.06,1999.03]		

Results for SupW tests for structural change in recession volatility for individual series, when a linear AR model with structural change is used for the conditional mean. The columns headed σ_{R} and σ_0 contain estimates of the conditional standard deviation during expansions and recessions under the null hypothesis, respectively. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation during recessions before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated volatility break date is given in the column headed τ_v, with the 90% confidence interval given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional volatility. Figures in brackets below parameter estimates are standard errors.

Table A.9: Tests for structural change in expansion volatility

Series	p	σ_{R}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production									
IP	3	9.58	7.24	8.29	5.32	−35.89	1987.02	0.000426	0.00903
		[0.32]	[0.13]	[0.41]	[0.55]	[7.39]	[1985.06,1992.03]		
IPP	3	9.99	7.52	8.04	5.64	−29.91	1992.06	0.0207	0.00277
		[0.31]	[0.12]	[0.35]	[0.66]	[8.70]	[1990.07,1998.08]		
IPF	3	10.54	8.17	8.65	6.45	−25.38	1992.06	0.0880	0.00826
		[0.32]	[0.13]	[0.38]	[0.71]	[8.89]	[1989.01,1999.12]		
IPC	0	12.25	9.96	10.66	7.43	−30.30	1992.07	0.0332	0.0493
		[0.36]	[0.15]	[0.49]	[0.93]	[9.27]	[1990.07,1999.04]		
IPCD	1	34.33	24.44	25.90	22.94	−11.43	1980.12	0.932	0.00322
		[0.62]	[0.25]	[1.77]	[1.78]	[9.15]	[1960.02,1999.12]		
IPCN	2	8.29	8.53	9.05	6.94	−23.35	1991.07	0.0569	0.776
		[0.31]	[0.13]	[0.36]	[0.64]	[7.67]	[1986.12,1999.04]		
IPE	5	15.15	11.41	12.08	9.05	−25.13	1992.04	0.134	0.00528
		[0.39]	[0.16]	[0.57]	[1.06]	[9.42]	[1987.08,1999.12]		
IPI	3	12.38	9.36	10.25	6.16	−39.95	1992.06	0.000400	0.00452
		[0.35]	[0.14]	[0.44]	[0.83]	[8.54]	[1991.07,1995.12]		
IPM	12	11.85	9.29	11.06	6.42	−41.98	1986.03	9.58E-006	0.0336
		[0.37]	[0.15]	[0.56]	[0.71]	[7.05]	[1985.05,1990.03]		
IPMD	12	19.05	13.40	17.26	11.17	−35.28	1975.09	6.31E-005	0.000827
		[0.44]	[0.18]	[1.02]	[0.78]	[5.90]	[1973.10,1980.10]		
IPMND	10	15.50	11.20	11.84	9.11	−23.05	1991.11	0.160	0.000709
		[0.38]	[0.15]	[0.54]	[0.97]	[8.94]	[1987.07,1999.12]		
IPMFG	3	10.67	7.95	8.74	5.36	−38.64	1991.12	0.00243	0.00654
		[0.34]	[0.14]	[0.42]	[0.76]	[9.21]	[1990.11,1996.08]		
IPD	3	14.96	10.50	12.05	8.55	−29.10	1984.01	0.0134	0.00137
		[0.40]	[0.16]	[0.69]	[0.77]	[7.59]	[1980.04,1992.11]		
IPN	3	9.86	7.69	8.35	5.70	−31.72	1991.06	0.00862	0.0136
		[0.32]	[0.13]	[0.37]	[0.65]	[8.39]	[1990.01,1997.05]		
IPMIN	1	13.99	13.01	14.43	10.52	−27.08	1986.11	0.0303	0.547
		[0.43]	[0.17]	[0.75]	[1.00]	[7.93]	[1983.03,1996.05]		
IPUT	10	14.83	17.79	12.98	21.95	69.08	1979.01	4.67E-007	0.171
		[0.50]	[0.20]	[1.15]	[1.07]	[17.09]	[1975.02,1979.11]		
IPX	3	748.45	568.07	691.67	469.06	−32.18	1984.03	0.00304	0.0184
		[3.06]	[1.28]	[43.43]	[38.87]	[7.05]	[1982.05,1990.10]		
IPXMCA	3	827.05	654.20	764.80	515.79	−32.56	1984.01	0.000965	0.0343
		[3.04]	[1.23]	[40.27]	[45.05]	[6.88]	[1982.03,1990.07]		
IPXDCA	3	1139.09	787.24	927.73	677.45	−26.98	1984.01	0.0603	0.00196
		[3.73]	[1.56]	[65.50]	[57.90]	[8.09]	[1979.09,1994.08]		
IPXNCA	3	820.75	635.43	716.93	456.44	−36.33	1991.06	0.000899	0.0165
		[3.07]	[1.29]	[35.20]	[52.17]	[7.92]	[1990.06,1995.08]		
IPXMIN	1	1475.71	1147.70	1333.73	926.71	−30.52	1986.11	0.0144	0.0387
		[4.40]	[1.84]	[81.89]	[89.25]	[7.94]	[1984.05,1994.08]		
IPXUT	6	1460.26	1651.46	1237.37	1899.09	53.48	1980.12	0.00187	0.373
		[5.12]	[2.14]	[132.53]	[102.49]	[18.41]	[1975.09,1982.09]		
GMPYQ	9	4.53	4.12	3.44	4.38	27.51	1971.05	0.316	0.452
		[0.25]	[0.10]	[0.38]	[0.24]	[15.78]	[1960.02,1986.09]		
GMYXPQ	9	4.26	3.93	3.28	4.21	28.57	1972.05	0.105	0.452
		[0.22]	[0.09]	[0.30]	[0.20]	[13.04]	[1961.09,1979.08]		
(Un)employment									
LHEL	12	1937.29	2132.59	1956.47	2964.25	51.51	1993.12	8.98E-005	0.383
		[5.03]	[2.03]	[90.05]	[195.69]	[12.19]	[1990.04,1995.07]		
LHELX	4	46.89	44.28	56.17	37.82	−32.67	1973.11	0.000622	0.643
		[0.80]	[0.32]	[3.49]	[2.57]	[6.21]	[1971.10,1980.12]		
LHEM	8	2.86	3.15	3.66	2.47	−32.53	1984.08	0.000460	0.432
		[0.21]	[0.08]	[0.18]	[0.21]	[6.62]	[1982.07,1990.03]		
LHNAG	8	3.08	2.93	3.15	2.18	−30.69	1992.02	0.0186	0.653
		[0.19]	[0.08]	[0.14]	[0.26]	[8.79]	[1990.06,1998.06]		
LHUR	12	207.89	170.97	177.97	145.92	−18.00	1992.06	0.470	0.0543
		[1.47]	[0.59]	[8.09]	[15.30]	[9.37]	[1984.02,1999.12]		
LHU680	7	466.16	532.31	765.90	490.14	−36.00	1966.02	6.14E-005	0.246
		[2.54]	[1.03]	[53.31]	[22.65]	[5.35]	[1964.08,1969.01]		
LHU5	12	48.65	46.22	56.24	41.28	−26.60	1973.02	0.0119	0.662
		[0.79]	[0.32]	[3.58]	[2.51]	[6.46]	[1968.07,1981.04]		
LHU14	5	54.94	56.13	71.04	50.90	−28.35	1969.10	0.00164	0.844
		[0.83]	[0.33]	[4.35]	[2.58]	[5.69]	[1966.12,1975.10]		
LHU15	4	60.45	56.53	74.52	49.97	−32.94	1970.12	3.25E-005	0.519
		[0.83]	[0.33]	[4.29]	[2.59]	[5.20]	[1968.12,1974.11]		
LHU26	4	77.99	88.60	111.78	80.16	−28.29	1970.12	0.000985	0.251
		[1.02]	[0.41]	[6.58]	[3.97]	[5.52]	[1967.12,1975.12]		
LHU27	7	73.50	75.53	100.38	59.75	−40.48	1976.06	1.24E-008	0.816
		[0.99]	[0.40]	[5.03]	[4.01]	[4.98]	[1975.06,1979.08]		
LHCH	12	144.73	230.06	211.72	325.62	53.80	1989.09	0.000485	0.000638
		[1.67]	[0.73]	[10.65]	[24.32]	[13.85]	[1987.03,1991.08]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	2.22	1.66	2.15	1.15	−46.73	1981.05	9.68E-010	0.00791
		[0.15]	[0.06]	[0.10]	[0.11]	[5.63]	[1980.09,1984.02]		
LP	3	2.57	1.91	2.46	1.22	−50.44	1984.02	9.93E-010	0.00967
		[0.17]	[0.07]	[0.12]	[0.14]	[6.14]	[1983.08,1986.10]		
LPGD	3	4.86	3.44	4.35	2.30	−47.07	1984.02	4.73E-007	0.00390
		[0.24]	[0.10]	[0.24]	[0.27]	[6.81]	[1983.08,1987.11]		
LPMI	12	10.77	7.87	8.68	5.78	−33.42	1989.08	0.0585	0.0177
		[0.37]	[0.15]	[0.54]	[0.86]	[10.67]	[1987.11,1999.11]		
LPCC	5	11.38	9.94	13.06	6.00	−54.09	1984.02	1.98E-008	0.358
		[0.42]	[0.17]	[0.75]	[0.85]	[6.99]	[1983.10,1987.05]		
LPEM	3	5.07	3.09	3.94	2.23	−43.52	1980.11	4.51E-005	4.82E-005
		[0.23]	[0.09]	[0.25]	[0.25]	[7.33]	[1980.01,1986.08]		
LPED	5	7.05	4.30	5.28	3.10	−41.25	1983.11	0.00154	0.000191
		[0.29]	[0.12]	[0.36]	[0.40]	[8.66]	[1982.12,1991.08]		
LPEN	2	3.68	2.45	3.24	1.68	−48.27	1980.08	2.77E-009	0.000228
		[0.19]	[0.08]	[0.17]	[0.17]	[5.85]	[1979.11,1983.08]		
LPSP	6	1.79	1.36	1.63	1.02	−37.03	1984.02	9.18E-006	0.00699
		[0.13]	[0.05]	[0.08]	[0.09]	[6.15]	[1982.07,1988.01]		
LPTU	12	3.36	4.48	5.57	3.45	−37.95	1979.10	0.00109	0.110
		[0.28]	[0.11]	[0.37]	[0.36]	[7.67]	[1976.02,1985.06]		
LPT	12	2.76	2.22	2.63	1.64	−37.76	1985.03	2.89E-005	0.0471
		[0.18]	[0.07]	[0.13]	[0.16]	[6.64]	[1984.02,1989.09]		
LPFR	10	1.28	1.38	1.58	1.14	−28.02	1983.10	0.00114	0.485
		[0.13]	[0.05]	[0.07]	[0.08]	[6.08]	[1980.11,1989.09]		
LPS	10	1.89	1.82	2.19	1.39	−36.49	1983.07	9.06E-006	0.748
		[0.16]	[0.06]	[0.10]	[0.11]	[6.03]	[1982.05,1987.11]		
LPGOV	12	4.27	2.09	2.41	1.12	−53.35	1991.06	0.000405	4.13E-010
		[0.20]	[0.08]	[0.15]	[0.26]	[11.05]	[1991.04,1995.09]		
LW	4	143.24	112.15	134.80	89.25	−33.79	1984.04	0.00132	0.0459
		[1.38]	[0.55]	[7.95]	[7.99]	[7.10]	[1981.08,1989.10]		
LPHRM	12	317.13	214.04	253.93	162.63	−35.96	1984.04	0.00159	0.000824
		[1.87]	[0.75]	[15.11]	[17.16]	[7.76]	[1982.10,1991.06]		
LPMOSA	12	152.71	128.47	145.48	108.02	−25.75	1983.09	0.0414	0.148
		[1.38]	[0.56]	[8.40]	[9.22]	[7.65]	[1978.08,1994.10]		
Wages and salaries									
LEH	12	3.05	2.25	2.78	1.18	−57.67	1989.05	9.39E-010	0.0127
		[0.20]	[0.08]	[0.14]	[0.20]	[7.33]	[1989.02,1991.05]		
LEHCC	11	6.67	5.45	7.00	4.47	−36.09	1976.05	8.49E-005	0.0887
		[0.29]	[0.11]	[0.42]	[0.33]	[6.14]	[1974.03,1981.06]		
LEHM	11	4.09	3.15	3.88	2.41	−37.89	1980.11	9.71E-005	0.0291
		[0.22]	[0.09]	[0.22]	[0.22]	[6.77]	[1978.10,1985.11]		
LEHTU	11	4.29	4.21	5.45	2.99	−45.10	1984.02	8.81E-008	0.900
		[0.27]	[0.11]	[0.29]	[0.29]	[6.06]	[1983.07,1987.04]		
LEHTT	9	3.21	2.66	3.15	2.00	−36.51	1986.05	8.11E-005	0.101
		[0.20]	[0.08]	[0.16]	[0.19]	[6.70]	[1985.04,1990.10]		
LEHFR	12	4.62	4.48	5.41	2.74	−49.39	1988.10	2.24E-009	0.795
		[0.26]	[0.10]	[0.24]	[0.33]	[6.46]	[1988.04,1990.10]		
LEHS	12	3.82	3.08	3.87	1.54	−60.23	1989.02	6.54E-015	0.0568
		[0.22]	[0.09]	[0.16]	[0.23]	[6.14]	[1988.11,1990.06]		
Construction									
HSFR	12	93.95	80.84	87.43	57.27	−34.50	1992.06	0.00953	0.176
		[1.05]	[0.42]	[4.04]	[7.64]	[9.25]	[1990.06,1997.08]		
HSNE	4	255.62	173.82	189.57	153.71	−18.92	1984.03	0.239	0.000116
		[1.55]	[0.63]	[10.55]	[11.92]	[7.74]	[1977.02,1999.12]		
HSMW	3	188.95	159.43	175.46	125.40	−28.53	1988.04	0.0242	0.136
		[1.50]	[0.60]	[8.88]	[12.93]	[8.21]	[1984.07,1996.06]		
HSSOU	12	124.44	93.85	102.08	83.35	−18.35	1984.03	0.267	0.00719
		[1.14]	[0.46]	[5.66]	[6.39]	[7.72]	[1973.10,1999.12]		
HSWST	2	166.03	127.58	135.03	117.09	−13.29	1985.01	0.541	0.00457
		[1.24]	[0.50]	[6.61]	[7.84]	[7.19]	[1967.07,1999.12]		
HSBR	2	97.28	63.96	71.22	43.26	−39.25	1990.05	0.00151	6.12E-005
		[0.97]	[0.39]	[3.56]	[6.00]	[8.96]	[1989.08,1995.05]		
HSBNE	4	145.39	120.55	133.78	102.14	−23.65	1985.01	0.0706	0.119
		[1.40]	[0.53]	[7.30]	[8.61]	[7.67]	[1979.07,1997.01]		
HSBMW	12	139.81	104.22	117.52	66.67	−43.27	1990.05	0.000375	0.0166
		[1.35]	[0.51]	[5.98]	[10.04]	[9.02]	[1989.06,1994.06]		
HSBSOU	12	91.84	77.36	66.17	82.18	24.20	1972.04	0.275	0.132
		[1.09]	[0.41]	[6.14]	[4.03]	[13.04]	[1961.02,1980.10]		
HSBWST	1	140.44	94.95	102.42	81.07	−20.84	1987.05	0.223	0.000336
		[1.25]	[0.47]	[5.51]	[7.52]	[8.49]	[1982.03,1999.12]		
HNS	2	123.63	78.46	80.73	67.90	−15.89	1994.06	0.777	1.73E-006
		[1.08]	[0.42]	[3.78]	[8.16]	[10.84]	[1988.07,1999.12]		
HNSNE	12	211.08	182.57	152.73	196.51	28.67	1984.02	0.240	0.240
		[1.84]	[0.75]	[16.05]	[10.97]	[15.31]	[1974.08,1991.07]		
HNSMW	11	167.93	126.55	90.18	132.59	47.03	1978.05	0.260	0.0213
		[1.58]	[0.64]	[17.78]	[7.24]	[30.09]	[1974.02,1981.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	143.87	98.24	108.22	67.82	−37.33	1994.06	0.00871	0.000683
		[1.37]	[0.56]	[5.71]	[9.97]	[9.79]	[1992.07,1997.12]		
HNSWST	12	166.50	123.72	132.30	90.65	−31.48	1995.05	0.137	0.0171
		[1.58]	[0.64]	[7.50]	[14.72]	[11.78]	[1993.07,1999.12]		
HNR	4	1042.52	516.53	544.70	385.08	−29.30	1994.06	0.152	1.11E-014
		[2.90]	[1.13]	[27.09]	[58.52]	[11.30]	[1991.08,1999.12]		
HMOB	3	84.23	47.24	58.88	35.71	−39.35	1980.09	1.30E-005	3.35E-009
		[0.84]	[0.34]	[3.23]	[3.21]	[6.39]	[1979.05,1985.06]		
CONTC	1	23.69	16.90	20.31	13.53	−33.39	1984.02	0.000392	0.00169
		[0.52]	[0.20]	[1.11]	[1.10]	[6.53]	[1982.02,1989.03]		
CONPC	6	20.18	17.32	22.75	14.62	−35.73	1977.04	7.58E-005	0.205
		[0.53]	[0.21]	[1.41]	[0.99]	[5.91]	[1975.10,1982.02]		
CONQC	2	43.80	33.99	40.01	28.35	−29.16	1983.09	0.00545	0.0256
		[0.74]	[0.29]	[2.29]	[2.22]	[6.87]	[1980.08,1990.08]		
CONDO9	9	108.29	88.55	67.93	92.49	36.16	1966.05	0.205	0.0574
		[1.08]	[0.44]	[9.65]	[4.21]	[20.31]	[1960.02,1969.04]		
Trade									
MSMTQ	12	9.78	10.71	11.68	7.47	−36.06	1992.01	0.000377	0.403
		[0.35]	[0.14]	[0.46]	[0.85]	[7.70]	[1990.09,1995.07]		
MSMQ	12	14.39	14.50	16.51	12.50	−24.32	1980.10	0.00744	0.943
		[0.42]	[0.17]	[0.80]	[0.80]	[6.05]	[1976.12,1989.01]		
MSDQ	12	20.71	20.67	23.39	17.30	−26.01	1983.12	0.00565	0.987
		[0.50]	[0.20]	[1.12]	[1.24]	[6.37]	[1980.01,1991.02]		
MSNQ	3	13.65	12.36	13.73	10.75	−21.75	1983.06	0.0440	0.337
		[0.39]	[0.16]	[0.68]	[0.74]	[6.61]	[1978.08,1995.01]		
WTQ	3	16.31	15.24	17.76	10.66	−39.97	1987.02	5.49E-006	0.546
		[0.45]	[0.18]	[0.80]	[1.09]	[6.69]	[1986.02,1990.08]		
WTDQ	5	19.52	16.85	18.09	11.74	−35.10	1993.04	0.00536	0.151
		[0.46]	[0.19]	[0.76]	[1.56]	[9.04]	[1991.09,1997.08]		
WTNQ	4	23.27	20.79	24.59	16.69	−32.11	1981.06	0.000177	0.298
		[0.52]	[0.21]	[1.21]	[1.26]	[6.11]	[1979.11,1987.03]		
RTQ	11	15.32	12.21	13.58	8.29	−38.93	1990.05	0.000641	0.0370
		[0.41]	[0.17]	[0.64]	[1.08]	[8.44]	[1989.06,1994.10]		
RTDQ	2	39.65	27.13	31.17	15.61	−49.93	1990.05	1.06E-005	0.000615
		[0.64]	[0.26]	[1.55]	[2.61]	[8.74]	[1989.12,1993.06]		
RTNQ	12	9.54	8.53	10.75	6.92	−35.58	1977.07	2.04E-006	0.291
		[0.33]	[0.13]	[0.54]	[0.46]	[5.31]	[1976.03,1981.09]		
Inventories									
IVMTQ	3	5.50	3.60	4.56	3.31	−27.27	1968.11	0.00598	1.29E-006
		[0.21]	[0.09]	[0.30]	[0.17]	[6.01]	[1965.06,1975.04]		
IVMFGQ	12	4.50	4.01	4.35	3.43	−21.15	1986.09	0.0635	0.249
		[0.22]	[0.09]	[0.20]	[0.26]	[6.90]	[1980.06,1997.02]		
IVMFDQ	12	5.34	5.04	6.11	4.64	−24.00	1971.03	0.0341	0.602
		[0.26]	[0.10]	[0.41]	[0.25]	[6.50]	[1966.10,1982.02]		
IVMFNQ	2	5.98	5.20	5.79	4.13	−28.65	1986.12	0.00341	0.172
		[0.25]	[0.10]	[0.26]	[0.35]	[6.87]	[1984.02,1993.03]		
IVWRQ	12	12.23	7.40	8.31	6.09	−26.76	1985.02	0.00707	5.63E-009
		[0.31]	[0.12]	[0.40]	[0.48]	[6.72]	[1981.07,1992.07]		
IVRRQ	12	9.58	8.05	8.71	6.23	−28.47	1990.03	0.0231	0.0964
		[0.32]	[0.13]	[0.40]	[0.66]	[8.28]	[1987.06,1997.06]		
IVSRQ	12	16.82	15.73	17.00	10.54	−37.96	1993.03	0.00112	0.522
		[0.44]	[0.18]	[0.70]	[1.42]	[8.72]	[1992.02,1996.10]		
IVSRMQ	12	25.69	23.54	25.33	16.45	−35.04	1993.01	0.00367	0.400
		[0.54]	[0.22]	[1.06]	[2.11]	[8.74]	[1992.01,1997.06]		
IVSRWQ	2	21.18	19.79	13.83	20.82	50.57	1965.12	0.0306	0.520
		[0.49]	[0.20]	[2.07]	[0.86]	[23.44]	[1961.03,1967.11]		
IVSRRQ	5	24.40	19.13	20.26	14.12	−30.30	1993.08	0.112	0.0320
		[0.53]	[0.21]	[1.01]	[2.12]	[11.04]	[1991.08,1999.12]		
Orders									
MOCMQ	12	30.18	25.78	27.80	19.04	−31.50	1992.01	0.00646	0.113
		[0.56]	[0.23]	[1.17]	[2.13]	[8.19]	[1990.08,1997.04]		
MDOQ	6	44.62	33.93	35.66	26.60	−25.41	1993.05	0.0786	0.00214
		[0.63]	[0.25]	[1.44]	[2.95]	[8.81]	[1990.05,1999.12]		
MSONDQ	9	78.34	72.18	45.85	77.66	69.40	1966.10	0.00114	0.442
		[0.95]	[0.38]	[7.10]	[3.24]	[27.16]	[1963.06,1967.09]		
MO	6	25.60	20.72	21.62	16.91	−21.79	1993.05	0.215	0.0235
		[0.49]	[0.20]	[0.89]	[1.83]	[9.08]	[1988.12,1999.12]		
MOWU	6	37.66	29.75	31.18	23.89	−23.38	1993.03	0.142	0.0110
		[0.59]	[0.24]	[1.29]	[2.61]	[8.94]	[1988.09,1999.12]		
MDO	6	45.33	33.93	35.55	27.31	−23.17	1993.03	0.138	0.00111
		[0.63]	[0.25]	[1.45]	[2.93]	[8.82]	[1989.07,1999.12]		
MDUWU	6	46.40	36.17	37.71	29.86	−20.80	1993.03	0.253	0.00661
		[0.65]	[0.26]	[1.56]	[3.16]	[9.01]	[1987.09,1999.12]		
MNO	12	16.92	12.39	13.07	9.36	−28.41	1993.08	0.114	0.00234
		[0.41]	[0.17]	[0.61]	[1.29]	[10.40]	[1991.05,1999.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	21.75	20.16	21.76	18.57	−14.67	1980.10	0.343	0.446
		[0.49]	[0.20]	[1.10]	[1.10]	[6.64]	[1968.05,1999.12]		
MU	3	8.67	7.72	8.93	7.22	−19.09	1971.09	0.145	0.253
		[0.31]	[0.12]	[0.58]	[0.37]	[6.64]	[1962.11,1984.07]		
MDU	3	8.89	8.07	9.42	7.51	−20.26	1971.09	0.0941	0.342
		[0.31]	[0.13]	[0.60]	[0.38]	[6.50]	[1964.06,1983.07]		
MNU	12	19.97	17.00	18.67	15.37	−17.69	1980.08	0.170	0.106
		[0.46]	[0.18]	[0.97]	[0.96]	[6.68]	[1971.02,1997.04]		
MPCON	5	74.80	74.91	53.58	80.45	50.14	1967.12	0.00262	0.989
		[0.93]	[0.38]	[6.20]	[3.16]	[18.35]	[1963.10,1969.06]		
MPCONQ	9	70.74	74.18	78.77	54.22	−31.17	1993.07	0.00756	0.636
		[0.91]	[0.37]	[2.98]	[6.22]	[8.32]	[1991.07,1997.10]		
Consumption									
GMCQ	8	7.26	5.99	6.62	3.88	−41.30	1992.01	0.000101	0.0596
		[0.28]	[0.11]	[0.28]	[0.52]	[8.18]	[1991.01,1995.03]		
GMCDQ	8	34.92	28.22	31.07	19.67	−36.71	1991.05	0.00273	0.0544
		[0.63]	[0.25]	[1.48]	[2.57]	[8.79]	[1990.07,1996.07]		
GMCNQ	12	6.99	7.26	8.46	5.58	−34.01	1984.12	6.68E-005	0.745
		[0.30]	[0.12]	[0.39]	[0.46]	[6.27]	[1983.01,1989.05]		
GMCSQ	10	3.96	3.65	2.71	4.04	48.68	1971.11	0.00200	0.448
		[0.22]	[0.09]	[0.28]	[0.18]	[16.86]	[1966.05,1973.08]		
GMCANQ	5	103.67	73.60	80.47	52.19	−35.15	1991.08	0.0278	0.00390
		[1.09]	[0.44]	[4.43]	[7.83]	[10.37]	[1990.08,1999.03]		
Money and credit									
FM1	9	4.85	4.36	3.41	5.19	52.09	1979.03	7.12E-005	0.343
		[0.24]	[0.10]	[0.27]	[0.26]	[14.35]	[1974.05,1981.04]		
FM2	12	2.65	2.30	1.33	2.48	86.68	1966.03	0.00261	0.229
		[0.18]	[0.07]	[0.27]	[0.12]	[39.52]	[1962.09,1966.08]		
FM3	8	2.94	2.50	1.37	2.71	97.11	1966.04	5.28E-005	0.108
		[0.18]	[0.07]	[0.26]	[0.11]	[37.52]	[1963.12,1966.09]		
FML	12	2.93	3.40	2.86	3.96	38.36	1979.10	0.000252	0.150
		[0.19]	[0.08]	[0.17]	[0.18]	[10.40]	[1974.10,1982.07]		
FM2DQ	10	3.78	2.86	2.25	3.08	36.80	1970.12	0.0541	0.00714
		[0.20]	[0.08]	[0.24]	[0.15]	[16.22]	[1962.08,1975.10]		
FMFBA	11	2.52	2.57	2.74	2.37	−13.75	1983.03	0.541	0.871
		[0.18]	[0.07]	[0.15]	[0.16]	[7.37]	[1961.07,1999.12]		
FMBASE	12	3.93	4.00	3.53	4.44	25.53	1979.09	0.0944	0.874
		[0.23]	[0.09]	[0.24]	[0.23]	[10.84]	[1965.03,1986.07]		
FMRRA	11	7.58	10.78	8.63	11.29	30.80	1967.06	0.119	0.00332
		[0.35]	[0.14]	[0.93]	[0.45]	[14.96]	[1960.02,1971.02]		
FMRNBA	1	22.94	17.08	13.22	19.84	50.08	1977.06	0.00950	0.0205
		[0.54]	[0.22]	[1.45]	[1.23]	[18.87]	[1968.08,1980.07]		
FMRNBC	1	19.62	14.91	10.04	16.35	62.88	1968.01	0.0109	0.0187
		[0.47]	[0.20]	[1.61]	[0.88]	[27.50]	[1962.06,1969.01]		
FCLS	2	3.91	3.97	3.66	5.13	40.15	1995.03	0.0362	0.911
		[0.27]	[0.11]	[0.22]	[0.43]	[14.45]	[1987.04,1997.05]		
FCSGV	3	13.38	9.49	10.40	8.72	−16.23	1987.03	0.638	0.00505
		[0.44]	[0.18]	[0.77]	[0.71]	[9.19]	[1974.04,1999.12]		
FCLRE	3	2.39	2.95	2.54	4.76	87.43	1995.11	6.08E-006	0.221
		[0.25]	[0.10]	[0.18]	[0.38]	[20.19]	[1992.05,1996.05]		
FCLIN	3	4.80	3.88	3.33	6.46	94.02	1996.01	5.39E-007	0.117
		[0.29]	[0.12]	[0.23]	[0.50]	[20.17]	[1994.01,1996.09]		
FCLNBF	1	19.34	19.54	14.86	24.83	67.12	1985.09	0.000171	0.941
		[0.60]	[0.29]	[1.51]	[1.60]	[20.09]	[1982.11,1986.12]		
FCLNQ	7	10.57	8.53	5.67	9.61	69.58	1971.03	1.75E-005	0.0340
		[0.33]	[0.13]	[0.67]	[0.41]	[21.29]	[1968.01,1972.05]		
FCLBMC	8	26104.21	30780.81	9699.00	50476.96	420.43	1979.09	5.34E-039	0.327
		[23.26]	[9.38]	[2191.63]	[2118.38]	[119.61]	[1978.09,1979.10]		
CCI30M	12	67.87	86.65	50.93	110.36	116.70	1973.10	2.73E-010	0.0947
		[1.12]	[0.48]	[6.68]	[5.44]	[30.36]	[1971.06,1973.12]		
CCINT	8	2878813.13	2299715.47	831766.51	2902982.16	249.01	1981.07	3.43E-008	0.210
		[280.71]	[107.12]	[283290.26]	[181606.27]	[120.86]	[1980.04,1981.09]		
CCINV	7	1059468.32	1171140.42	348369.97	1470825.03	322.20	1981.02	3.01E-011	0.601
		[190.74]	[72.79]	[133222.36]	[80402.58]	[163.10]	[1980.04,1981.03]		
Stock prices									
FSNCOM	2	60.56	33.54	35.27	29.50	−16.36	1988.12	0.592	1.58E-010
		[0.69]	[0.28]	[1.88]	[2.87]	[9.29]	[1974.06,1999.12]		
FSNIN	2	67.90	35.06	38.48	29.14	−24.28	1988.12	0.162	1.74E-011
		[0.77]	[0.32]	[2.31]	[3.04]	[9.12]	[1983.04,1999.12]		
FSNTR	2	87.62	50.98	54.97	42.48	−22.72	1990.04	0.148	3.61E-009
		[0.87]	[0.36]	[2.84]	[4.14]	[8.52]	[1982.11,1999.12]		
FSNUT	5	52.07	32.30	39.19	30.13	−23.11	1976.01	0.106	3.84E-007
		[0.69]	[0.28]	[3.00]	[1.68]	[7.28]	[1971.10,1988.01]		
FSNFI	2	81.92	46.25	52.49	44.28	−15.64	1976.01	0.686	2.21E-009
		[0.85]	[0.35]	[4.61]	[2.59]	[8.91]	[1967.02,1999.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	58.62	33.18	34.27	30.08	−12.24	1990.05	0.935	1.27E-009
		[0.69]	[0.28]	[1.82]	[3.07]	[10.10]	[1960.02,1999.12]		
FSPIN	2	59.72	33.92	35.39	30.50	−13.84	1988.12	0.790	1.54E-009
		[0.70]	[0.28]	[1.91]	[2.91]	[9.43]	[1966.05,1999.12]		
FSPCAP	1	70.01	40.76	38.05	42.84	12.59	1978.01	0.873	3.56E-009
		[0.75]	[0.30]	[2.81]	[2.46]	[10.53]	[1960.02,1999.12]		
FSPTR	2	84.93	50.21	53.66	44.13	−17.76	1990.03	0.463	3.18E-007
		[0.97]	[0.38]	[3.08]	[4.09]	[8.96]	[1978.08,1999.12]		
FSPUT	5	53.40	33.61	25.70	35.01	36.22	1966.01	0.219	3.65E-007
		[0.66]	[0.27]	[3.73]	[1.57]	[20.70]	[1960.02,1971.12]		
FSPFI	2	88.03	51.07	48.42	63.44	31.02	1995.07	0.215	7.19E-008
		[0.97]	[0.38]	[2.73]	[5.91]	[14.27]	[1986.12,1999.12]		
Dividends and volume									
FSDXP	1	62.49	35.84	34.52	42.12	22.02	1993.12	0.617	1.48E-008
		[0.73]	[0.29]	[1.93]	[4.20]	[13.95]	[1965.07,1999.12]		
FSPXE	4	62.24	41.33	42.87	37.58	−12.35	1989.04	0.897	5.37E-005
		[0.77]	[0.31]	[2.30]	[3.58]	[9.58]	[1960.02,1999.12]		
FSNVV3	12	38.27	34.17	56.12	25.22	−55.06	1981.06	1.20E-012	0.485
		[0.99]	[0.36]	[3.40]	[2.18]	[4.74]	[1981.01,1982.10]		
Interest rates									
FYFF	12	970.57	350.68	422.25	198.84	−52.91	1988.04	0.00242	1.89E-017
		[2.87]	[1.16]	[32.58]	[47.45]	[11.81]	[1987.11,1994.12]		
FYCP	12	862.99	363.31	177.83	429.51	141.53	1969.04	0.000185	1.61E-014
		[2.71]	[1.13]	[47.84]	[28.58]	[66.93]	[1965.04,1969.07]		
FYGM3	12	779.53	316.41	122.98	353.98	187.83	1966.06	0.00101	2.24E-016
		[2.53]	[1.02]	[51.43]	[22.66]	[121.76]	[1963.03,1966.10]		
FYGM6	12	751.04	313.91	132.52	348.52	163.00	1966.05	0.000894	4.68E-017
		[2.43]	[0.98]	[47.81]	[20.88]	[96.18]	[1963.03,1966.11]		
FYGT1	12	736.13	349.95	175.97	407.19	131.40	1969.05	1.68E-006	1.46E-014
		[2.39]	[0.96]	[36.61]	[21.00]	[49.60]	[1966.09,1969.10]		
FYGT5	6	480.35	302.12	148.83	353.22	137.33	1969.06	8.23E-008	1.27E-005
		[2.15]	[0.87]	[29.45]	[17.00]	[48.33]	[1967.03,1969.10]		
FYGT10	12	399.07	259.02	176.26	333.39	89.14	1979.05	7.23E-009	4.06E-005
		[1.97]	[0.79]	[17.80]	[16.88]	[21.37]	[1976.03,1980.01]		
FYAAAC	12	277.95	184.09	102.52	259.55	153.16	1979.08	3.49E-014	0.000678
		[1.77]	[0.71]	[13.98]	[13.44]	[36.92]	[1977.06,1979.12]		
FYBAAC	4	273.84	173.41	88.00	244.40	177.72	1978.09	1.69E-016	9.18E-005
		[1.71]	[0.69]	[13.24]	[12.07]	[43.98]	[1976.11,1978.12]		
FWAFIT	3	440.65	275.46	406.74	207.32	−49.03	1981.05	3.89E-005	0.000567
		[2.56]	[1.20]	[33.31]	[24.00]	[7.23]	[1980.08,1984.04]		
FYFHA	4	400.68	252.84	112.72	382.48	239.32	1979.08	7.39E-018	0.000581
		[2.21]	[0.89]	[21.41]	[20.60]	[67.01]	[1977.10,1979.10]		
Exchange rates									
EXRUS	2	23.98	18.51	11.18	19.88	77.78	1978.09	0.0201	0.0712
		[0.71]	[0.25]	[2.45]	[1.06]	[40.15]	[1975.09,1979.05]		
EXRGER	1	31.60	29.71	19.94	31.64	58.64	1978.09	0.0420	0.668
		[0.86]	[0.30]	[3.56]	[1.58]	[29.44]	[1975.04,1980.01]		
EXRSW	1	41.17	33.29	26.11	35.28	35.13	1980.01	0.206	0.116
		[0.91]	[0.32]	[3.48]	[1.83]	[19.34]	[1975.02,1985.09]		
EXRJAN	3	36.78	30.21	28.13	37.73	34.14	1995.02	0.124	0.169
		[0.89]	[0.31]	[1.74]	[3.31]	[14.41]	[1988.04,1999.06]		
EXRUK	3	28.95	26.91	30.69	18.07	−41.12	1993.04	0.000543	0.633
		[0.84]	[0.29]	[1.62]	[2.48]	[8.65]	[1992.07,1996.04]		
EXRCAN	12	10.29	12.12	11.45	14.25	24.38	1994.08	0.237	0.260
		[0.52]	[0.18]	[0.61]	[1.08]	[11.49]	[1986.06,1999.12]		
Producer prices									
PWFSA	9	6.25	4.12	4.44	3.20	−27.93	1990.04	0.114	0.000165
		[0.25]	[0.10]	[0.24]	[0.41]	[10.03]	[1987.03,1999.12]		
PWFCSA	9	7.12	5.23	5.60	4.04	−27.84	1991.08	0.107	0.00567
		[0.28]	[0.11]	[0.29]	[0.52]	[9.94]	[1989.01,1999.12]		
PWIMSA	4	7.53	4.10	2.95	4.53	53.52	1971.02	0.0429	5.72E-008
		[0.27]	[0.11]	[0.45]	[0.28]	[25.23]	[1961.09,1972.10]		
PWCMSA	11	26.34	20.33	17.82	32.21	80.80	1993.12	3.00E-005	0.0489
		[0.59]	[0.24]	[1.22]	[2.66]	[19.44]	[1990.11,1995.06]		
PWFXSA	9	5.07	4.37	2.39	4.72	97.33	1973.01	0.0168	0.287
		[0.28]	[0.12]	[0.65]	[0.27]	[54.66]	[1969.05,1973.09]		
PW160A	12	15.52	17.91	24.76	16.59	−32.99	1978.10	0.00572	0.353
		[0.66]	[0.23]	[2.05]	[0.90]	[6.64]	[1976.12,1981.08]		
PW150A	9	16.24	16.56	25.17	13.73	−45.46	1981.03	9.89E-007	0.909
		[0.69]	[0.24]	[1.78]	[1.02]	[5.60]	[1980.07,1983.11]		
PW561	5	76.86	51.03	22.80	95.96	320.90	1986.01	1.28E-031	0.00419
		[1.01]	[0.41]	[3.77]	[4.76]	[72.66]	[1984.08,1986.02]		
PWCM	9	5.13	5.32	3.79	5.77	52.14	1968.09	0.00726	0.764
		[0.27]	[0.11]	[0.49]	[0.26]	[20.72]	[1963.04,1970.03]		

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Series	p	σ_{R}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	6.96	4.54	5.65	4.30	−23.86	1973.10	0.365	0.000275
		[0.29]	[0.12]	[0.61]	[0.28]	[9.58]	[1968.02,1990.11]		
PSM99Q	12	15.41	13.83	9.71	14.64	50.76	1966.07	0.0340	0.324
		[0.43]	[0.17]	[1.47]	[0.65]	[23.71]	[1961.04,1969.01]		
PSCCOM	12	18.32	19.29	14.26	21.69	52.11	1972.11	0.00175	0.685
		[0.52]	[0.21]	[1.54]	[1.06]	[18.06]	[1966.09,1974.01]		
PSCFOO	12	30.94	29.39	21.31	33.25	56.05	1972.11	0.00286	0.695
		[0.67]	[0.27]	[2.56]	[1.77]	[20.52]	[1966.01,1973.08]		
PSCMAT	6	21.18	19.85	21.35	16.97	−20.49	1987.07	0.140	0.550
		[0.50]	[0.20]	[1.02]	[1.41]	[7.62]	[1982.02,1999.12]		
PZFR	6	18.50	22.14	29.36	20.69	−29.54	1979.08	0.0606	0.306
		[0.78]	[0.27]	[2.77]	[1.24]	[7.87]	[1977.06,1986.07]		
PCGOLD	7	73.25	46.76	68.85	39.44	−42.72	1983.03	0.000968	0.00702
		[1.30]	[0.45]	[6.19]	[3.56]	[7.30]	[1982.04,1987.08]		
Consumer prices									
PUNEW	9	3.03	1.93	2.17	1.50	−30.93	1987.01	0.0185	3.30E-005
		[0.17]	[0.07]	[0.12]	[0.16]	[8.50]	[1984.09,1996.02]		
PU81	12	4.35	4.12	5.96	3.16	−47.10	1979.08	1.31E-006	0.725
		[0.28]	[0.12]	[0.41]	[0.30]	[6.19]	[1979.03,1983.12]		
PUH	9	4.50	2.17	2.79	1.48	−47.09	1986.07	1.76E-005	2.40E-011
		[0.21]	[0.09]	[0.18]	[0.19]	[7.63]	[1986.02,1990.09]		
PU83	6	3.16	3.99	2.86	5.78	101.94	1986.01	7.55E-017	0.0719
		[0.23]	[0.09]	[0.21]	[0.26]	[17.09]	[1984.01,1986.06]		
PU84	8	6.98	5.61	5.90	4.83	−18.19	1990.02	0.485	0.0496
		[0.28]	[0.11]	[0.30]	[0.50]	[9.49]	[1976.09,1999.12]		
PU85	6	2.26	2.14	2.98	1.18	−60.46	1983.04	2.78E-016	0.695
		[0.18]	[0.07]	[0.14]	[0.15]	[5.43]	[1983.01,1985.01]		
PUC	9	3.94	3.10	2.68	3.31	23.57	1972.12	0.387	0.0370
		[0.21]	[0.09]	[0.26]	[0.18]	[13.86]	[1960.02,1977.08]		
PUCD	12	3.50	2.66	3.15	1.92	−39.18	1985.06	6.79E-006	0.00868
		[0.19]	[0.08]	[0.15]	[0.18]	[6.49]	[1984.05,1989.05]		
PUS	9	3.39	2.13	2.87	1.28	−55.34	1983.04	1.62E-012	1.82E-005
		[0.18]	[0.07]	[0.14]	[0.15]	[5.76]	[1982.12,1985.07]		
PUXF	9	3.24	2.13	2.45	1.53	−37.53	1987.04	8.01E-005	1.46E-005
		[0.17]	[0.07]	[0.12]	[0.16]	[7.08]	[1986.02,1991.08]		
PUXHS	12	3.17	2.52	2.85	1.93	−32.12	1987.02	0.00118	0.0268
		[0.18]	[0.07]	[0.13]	[0.18]	[7.10]	[1984.07,1992.06]		
PUXM	9	3.25	2.23	2.56	1.58	−38.35	1987.09	0.000132	0.000224
		[0.18]	[0.07]	[0.12]	[0.17]	[7.43]	[1986.06,1992.03]		
GMDC	9	2.18	1.54	1.29	1.65	28.21	1972.08	0.139	0.000373
		[0.14]	[0.06]	[0.12]	[0.08]	[13.45]	[1960.02,1977.06]		
GMDCD	12	3.29	2.61	2.96	2.24	−24.45	1981.05	0.0465	0.0411
		[0.19]	[0.08]	[0.17]	[0.18]	[7.35]	[1976.06,1993.09]		
GMDCN	9	3.76	3.01	2.34	3.32	41.78	1972.08	0.0306	0.0553
		[0.21]	[0.09]	[0.26]	[0.18]	[17.47]	[1963.02,1975.01]		
GMDCS	9	1.76	1.35	0.94	1.55	64.48	1972.12	7.59E-005	0.0141
		[0.14]	[0.06]	[0.11]	[0.07]	[20.05]	[1968.08,1973.12]		
Miscellaneous									
PMI	12	2970.86	2677.29	3051.85	2170.02	−28.90	1984.09	0.00252	0.337
		[5.89]	[2.37]	[148.51]	[172.82]	[6.64]	[1981.11,1991.05]		
PMP	12	3728.61	3978.43	4503.20	3267.74	−27.44	1984.09	0.00664	0.587
		[7.22]	[2.91]	[223.81]	[260.46]	[6.82]	[1982.03,1992.11]		
PMNO	4	4521.87	4225.44	4673.21	3612.98	−22.69	1984.10	0.0698	0.556
		[7.55]	[3.04]	[245.52]	[287.15]	[7.37]	[1979.03,1997.02]		
PMDEL	12	5171.46	3276.74	4427.82	2211.73	−50.05	1979.08	5.46E-009	7.52E-005
		[7.36]	[2.97]	[247.66]	[238.22]	[6.06]	[1979.01,1982.12]		
PMNV	12	3097.00	3558.66	3932.08	2730.15	−30.57	1988.08	0.00218	0.232
		[6.62]	[2.67]	[171.39]	[255.29]	[7.16]	[1986.12,1994.05]		
PMEMP	12	2941.32	3003.31	3403.58	2182.02	−35.89	1988.01	7.89E-005	0.852
		[6.14]	[2.48]	[148.57]	[212.81]	[6.85]	[1986.08,1992.01]		
PMCP	12	4263.93	4432.76	4871.87	3782.04	−22.37	1985.06	0.108	0.758
		[7.88]	[3.18]	[263.28]	[320.50]	[7.80]	[1978.02,1998.06]		
HHSNTN	0	4899.70	3753.50	2040.22	5082.77	149.13	1978.02	2.37E-016	0.0218
		[7.52]	[3.03]	[262.73]	[231.42]	[34.03]	[1976.04,1978.05]		
F6EDM	12	58.20	70.47	99.87	60.88	−39.04	1973.05	2.70E-005	0.196
		[1.08]	[0.43]	[6.86]	[3.92]	[5.74]	[1972.08,1978.11]		
FTMC6	12	125.16	107.50	115.73	82.90	−28.37	1990.04	0.0353	0.154
		[1.23]	[0.51]	[5.37]	[9.29]	[8.69]	[1987.11,1996.08]		
FTMM6	5	68.38	67.57	81.55	46.87	−42.53	1987.02	2.38E-006	0.927
		[1.04]	[0.41]	[4.07]	[4.95]	[6.71]	[1986.08,1990.07]		

Results for SupW tests for structural change in expansion volatility for individual series, when a linear AR model with constant parameters is used for the conditional mean. The columns headed σ_{R} and σ_0 contain estimates of the conditional standard deviation during recessions and expansions under the null hypothesis, respectively. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation during expansions before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated volatility break date is given in the column headed τ_v, with the 90% confidence interval given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional volatility. Figures in brackets below parameter estimates are standard errors.

Table A.10: Tests for structural change in recession volatility

Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production									
IP	3	7.24	9.58	11.08	4.79	−56.74	1982.03	0.0199	0.00903
		[0.13]	[0.32]	[0.94]	[1.68]	[15.64]	[1979.02,1989.06]		
IPP	3	7.52	9.99	11.40	5.51	−51.68	1982.03	0.0170	0.00277
		[0.12]	[0.31]	[0.87]	[1.55]	[14.12]	[1978.06,1988.07]		
IPF	3	8.17	10.54	11.35	7.76	−31.65	1982.04	0.506	0.00826
		[0.13]	[0.32]	[0.94]	[1.76]	[16.51]	[1971.03,1999.12]		
IPC	0	9.96	12.25	14.43	8.81	−38.97	1980.05	0.127	0.0493
		[0.15]	[0.36]	[1.37]	[1.72]	[13.26]	[1974.07,1996.11]		
IPCD	1	24.44	34.33	29.73	38.54	29.63	1974.10	0.785	0.00322
		[0.25]	[0.62]	[4.50]	[4.30]	[24.37]	[1960.02,1999.12]		
IPCN	2	8.53	8.29	9.12	5.43	−40.48	1982.04	0.399	0.776
		[0.13]	[0.31]	[0.89]	[1.66]	[19.10]	[1969.07,1997.04]		
IPE	5	11.41	15.15	9.57	17.20	79.83	1970.08	0.0825	0.00528
		[0.16]	[0.39]	[2.38]	[1.45]	[47.29]	[1961.05,1976.04]		
IPI	3	9.36	12.38	10.15	13.47	32.61	1973.12	0.665	0.00452
		[0.14]	[0.35]	[1.72]	[1.20]	[25.35]	[1960.02,1999.12]		
IPM	12	9.29	11.85	13.63	6.17	−54.74	1982.03	0.0587	0.0336
		[0.15]	[0.37]	[1.27]	[2.27]	[17.15]	[1978.09,1991.11]		
IPMD	12	13.40	19.05	21.53	11.14	−48.23	1982.03	0.0623	0.000827
		[0.18]	[0.44]	[1.78]	[3.18]	[15.37]	[1979.04,1992.07]		
IPMND	10	11.20	15.50	11.09	19.30	74.09	1974.09	0.00860	0.000709
		[0.15]	[0.38]	[1.71]	[1.59]	[30.43]	[1967.02,1978.12]		
IPMFG	3	7.95	10.67	12.17	5.88	−51.71	1982.03	0.0516	0.00654
		[0.14]	[0.34]	[1.05]	[1.88]	[16.00]	[1978.10,1991.06]		
IPD	3	10.50	14.96	17.08	8.18	−52.11	1982.03	0.0463	0.00137
		[0.16]	[0.40]	[1.47]	[2.62]	[15.89]	[1978.03,1990.09]		
IPN	3	7.69	9.86	11.05	3.82	−65.47	1982.08	0.0162	0.0136
		[0.13]	[0.32]	[0.88]	[1.99]	[18.22]	[1980.03,1987.09]		
IPMIN	1	13.01	13.99	6.32	16.40	159.65	1970.06	0.0590	0.547
		[0.17]	[0.43]	[3.06]	[1.72]	[128.84]	[1962.11,1975.10]		
IPUT	10	17.79	14.83	5.19	16.94	226.58	1970.02	0.238	0.171
		[0.20]	[0.50]	[4.72]	[2.20]	[300.11]	[1960.02,1973.03]		
IPX	3	568.07	748.45	884.39	400.11	−54.76	1982.03	0.0296	0.0184
		[1.28]	[3.06]	[82.18]	[131.55]	[15.46]	[1979.06,1990.04]		
IPXMCA	3	654.20	827.05	939.06	470.05	−49.94	1982.03	0.100	0.0343
		[1.23]	[3.04]	[86.20]	[153.90]	[17.02]	[1978.02,1993.06]		
IPXDCA	3	787.24	1139.09	1330.30	649.14	−51.20	1982.03	0.0476	0.00196
		[1.56]	[3.73]	[122.24]	[195.68]	[15.38]	[1978.07,1990.07]		
IPXNCA	3	635.43	820.75	932.56	353.17	−62.13	1982.08	0.0203	0.0165
		[1.29]	[3.07]	[78.33]	[160.19]	[17.47]	[1980.04,1987.11]		
IPXMIN	1	1147.70	1475.71	1776.82	1240.47	−30.19	1975.01	0.488	0.0387
		[1.84]	[4.40]	[220.12]	[194.56]	[13.95]	[1968.02,1999.12]		
IPXUT	6	1651.46	1460.26	1400.43	2537.23	81.17	1990.12	0.871	0.373
		[2.14]	[5.12]	[202.78]	[860.32]	[66.80]	[1984.11,1999.02]		
GMPYQ	9	4.12	4.53	6.79	3.69	−45.60	1970.08	0.0804	0.452
		[0.10]	[0.25]	[0.96]	[0.58]	[11.55]	[1962.12,1979.08]		
GMYXPQ	9	3.93	4.26	5.33	3.62	−32.17	1974.03	0.353	0.452
		[0.09]	[0.22]	[0.67]	[0.51]	[12.85]	[1960.02,1994.03]		
(Un)employment									
LHEL	12	2132.59	1937.29	1729.24	2227.07	28.79	1980.03	0.929	0.383
		[2.03]	[5.03]	[271.49]	[320.42]	[27.43]	[1960.02,1999.12]		
LHELX	4	44.28	46.89	58.56	27.30	−53.38	1980.06	0.0526	0.643
		[0.32]	[0.80]	[6.55]	[8.49]	[15.41]	[1977.04,1994.03]		
LHEM	8	3.15	2.86	3.32	0.94	−71.80	1982.06	0.0809	0.432
		[0.08]	[0.21]	[0.38]	[0.78]	[23.69]	[1978.08,1991.01]		
LHNAG	8	2.93	3.08	3.43	0.83	−75.84	1982.10	0.0574	0.653
		[0.08]	[0.19]	[0.33]	[0.84]	[24.60]	[1979.11,1988.05]		
LHUR	12	170.97	207.89	230.93	90.61	−60.76	1982.08	0.0482	0.0543
		[0.59]	[1.47]	[19.29]	[43.52]	[19.13]	[1978.06,1988.02]		
LHU680	7	532.31	466.16	683.55	428.02	−37.38	1965.12	0.558	0.246
		[1.03]	[2.54]	[136.51]	[57.18]	[15.04]	[1960.02,1990.08]		
LHU5	12	46.22	48.65	75.09	41.67	−44.51	1970.04	0.102	0.662
		[0.32]	[0.79]	[11.21]	[5.76]	[11.29]	[1964.11,1981.09]		
LHU14	5	56.13	54.94	67.12	33.12	−50.65	1980.07	0.0486	0.844
		[0.33]	[0.83]	[6.91]	[9.25]	[14.69]	[1975.11,1992.02]		
LHU15	4	56.53	60.45	84.16	48.85	−41.96	1973.12	0.0455	0.519
		[0.33]	[0.83]	[9.75]	[6.82]	[10.52]	[1968.01,1984.08]		
LHU26	4	88.60	77.99	85.71	45.89	−46.45	1982.06	0.476	0.251
		[0.41]	[1.02]	[9.52]	[19.40]	[23.40]	[1969.07,1997.09]		
LHU27	7	75.53	73.50	93.41	44.01	−52.88	1980.04	0.0391	0.816
		[0.40]	[0.99]	[10.37]	[12.62]	[14.49]	[1976.09,1992.12]		
LHCH	12	230.06	144.73	168.24	89.48	−46.82	1981.11	0.667	0.000638
		[0.73]	[1.67]	[27.28]	[41.81]	[26.31]	[1960.02,1995.02]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	1.66	2.22	2.79	1.27	−54.56	1980.06	0.00271	0.00791
		[0.06]	[0.15]	[0.24]	[0.31]	[11.89]	[1978.05,1988.02]		
LP	3	1.91	2.57	3.21	1.57	−50.94	1980.05	0.0133	0.00967
		[0.07]	[0.17]	[0.30]	[0.38]	[12.63]	[1978.04,1991.01]		
LPGD	3	3.44	4.86	5.35	3.44	−35.72	1982.02	0.486	0.00390
		[0.10]	[0.24]	[0.53]	[0.90]	[18.02]	[1977.09,1999.12]		
LPMI	12	7.87	10.77	6.94	14.49	108.90	1974.11	0.0142	0.0177
		[0.15]	[0.37]	[1.60]	[1.58]	[53.24]	[1966.01,1978.10]		
LPCC	5	9.94	11.38	13.05	6.46	−50.44	1982.02	0.384	0.358
		[0.17]	[0.42]	[1.67]	[2.86]	[22.86]	[1979.01,1999.12]		
LPEM	3	3.09	5.07	2.48	5.63	126.66	1970.02	0.0923	4.82E-005
		[0.09]	[0.23]	[1.06]	[0.49]	[98.60]	[1964.09,1978.06]		
LPED	5	4.30	7.05	3.02	7.93	162.38	1970.02	0.0749	0.000191
		[0.12]	[0.29]	[1.60]	[0.75]	[141.14]	[1965.10,1979.08]		
LPEN	2	2.45	3.68	4.03	1.88	−53.22	1982.08	0.118	0.000228
		[0.08]	[0.19]	[0.34]	[0.76]	[19.18]	[1980.09,1992.08]		
LPSP	6	1.36	1.79	2.08	1.15	−44.61	1981.10	0.0493	0.00699
		[0.05]	[0.13]	[0.18]	[0.26]	[13.43]	[1977.10,1992.10]		
LPTU	12	4.48	3.36	4.63	2.69	−41.80	1974.01	0.786	0.110
		[0.11]	[0.28]	[1.11]	[0.80]	[22.24]	[1960.02,1999.12]		
LPT	12	2.22	2.76	3.38	1.79	−46.97	1980.05	0.0320	0.0471
		[0.07]	[0.18]	[0.32]	[0.40]	[12.88]	[1977.05,1992.08]		
LPFR	10	1.38	1.28	1.50	1.01	−32.61	1975.02	0.505	0.485
		[0.05]	[0.13]	[0.19]	[0.20]	[15.65]	[1960.02,1999.12]		
LPS	10	1.82	1.89	2.51	1.65	−34.37	1970.09	0.385	0.748
		[0.06]	[0.16]	[0.37]	[0.23]	[13.34]	[1960.02,1985.04]		
LPGOV	12	2.09	4.27	3.36	5.21	55.16	1974.12	0.0566	4.13E-010
		[0.08]	[0.20]	[0.45]	[0.46]	[24.86]	[1966.11,1985.12]		
LW	4	112.15	143.24	160.04	91.66	−42.73	1982.05	0.349	0.0459
		[0.55]	[1.38]	[16.59]	[29.07]	[19.11]	[1974.02,1998.03]		
LPHRM	12	214.04	317.13	362.35	184.16	−49.18	1982.02	0.0837	0.000824
		[0.75]	[1.87]	[32.84]	[56.32]	[16.21]	[1979.08,1994.07]		
LPMOSA	12	128.47	152.71	163.78	71.10	−56.59	1982.11	0.411	0.148
		[0.56]	[1.38]	[16.50]	[44.81]	[27.71]	[1977.10,1994.05]		
Wages and salaries									
LEH	12	2.25	3.05	3.67	1.60	−56.49	1982.02	0.0217	0.0127
		[0.08]	[0.20]	[0.35]	[0.54]	[15.24]	[1979.12,1991.01]		
LEHCC	11	5.45	6.67	4.59	8.26	80.06	1974.07	0.0789	0.0887
		[0.11]	[0.29]	[1.00]	[0.88]	[43.76]	[1967.04,1988.09]		
LEHM	11	3.15	4.09	4.63	2.52	−45.63	1982.02	0.214	0.0291
		[0.09]	[0.22]	[0.46]	[0.79]	[17.90]	[1977.01,1998.02]		
LEHTU	11	4.21	4.29	4.68	2.44	−47.84	1982.09	0.660	0.900
		[0.11]	[0.27]	[0.59]	[1.28]	[28.15]	[1975.02,1999.12]		
LEHTT	9	2.66	3.21	4.00	1.86	−53.41	1981.10	0.0158	0.101
		[0.08]	[0.20]	[0.39]	[0.51]	[13.52]	[1979.03,1990.10]		
LEHFR	12	4.48	4.62	3.45	5.08	47.48	1974.04	0.767	0.795
		[0.10]	[0.26]	[0.96]	[0.60]	[44.77]	[1965.02,1999.12]		
LEHS	12	3.08	3.82	4.31	2.44	−43.33	1982.04	0.220	0.0568
		[0.09]	[0.22]	[0.42]	[0.70]	[17.10]	[1977.07,1997.07]		
Construction									
HSFR	12	80.84	93.95	68.30	107.35	57.19	1974.01	0.330	0.176
		[0.42]	[1.05]	[15.24]	[11.02]	[38.61]	[1960.02,1989.09]		
HSNE	4	173.82	255.62	333.86	236.79	−29.08	1970.03	0.401	0.000116
		[0.63]	[1.55]	[44.52]	[21.84]	[11.50]	[1960.04,1988.10]		
HSMW	3	159.43	188.95	174.75	491.99	181.54	1990.12	0.00605	0.136
		[0.60]	[1.50]	[18.52]	[85.54]	[57.33]	[1990.04,1992.03]		
HSSOU	12	93.85	124.44	104.47	150.62	44.18	1980.02	0.276	0.00719
		[0.46]	[1.14]	[13.95]	[15.97]	[24.58]	[1963.08,1995.08]		
HSWST	2	127.58	166.03	175.39	105.72	−39.73	1982.10	0.440	0.00457
		[0.50]	[1.24]	[13.46]	[34.17]	[20.03]	[1974.07,1994.03]		
HSBR	2	63.96	97.28	68.53	125.19	82.66	1974.11	0.00425	6.12E-005
		[0.39]	[0.97]	[10.83]	[10.67]	[32.80]	[1968.09,1979.08]		
HSBNE	4	120.55	145.39	157.28	71.03	−54.84	1982.11	0.373	0.119
		[0.53]	[1.40]	[16.00]	[39.99]	[25.84]	[1976.11,1994.04]		
HSBMW	12	104.22	139.81	152.68	84.85	−44.42	1982.08	0.425	0.0166
		[0.51]	[1.35]	[15.39]	[31.82]	[21.58]	[1971.02,1996.01]		
HSBSOU	12	77.36	91.84	102.04	67.25	−34.10	1982.02	0.528	0.132
		[0.41]	[1.09]	[10.66]	[16.55]	[17.62]	[1965.05,1999.12]		
HSBWST	1	94.95	140.44	23.31	149.12	539.85	1970.03	0.0895	0.000336
		[0.47]	[1.25]	[44.86]	[12.21]	[1232.70]	[1966.11,1971.07]		
HNS	2	78.46	123.63	83.98	156.90	86.84	1975.02	0.000669	1.73E-006
		[0.42]	[1.08]	[12.77]	[11.69]	[31.63]	[1970.11,1978.08]		
HNSNE	12	182.57	211.08	148.21	243.59	64.36	1980.02	0.360	0.240
		[0.75]	[1.84]	[38.26]	[27.52]	[46.31]	[1974.02,1987.02]		
HNSMW	11	126.55	167.93	161.20	309.34	91.90	1991.01	0.462	0.0213
		[0.64]	[1.58]	[16.95]	[77.69]	[52.25]	[1988.07,1993.08]		

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Series	p	σ_E	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	98.24	143.87	157.40	111.60	−29.10	1982.06	0.587	0.000683
		[0.56]	[1.37]	[14.76]	[22.80]	[15.94]	[1974.02,1999.12]		
HNSWST	12	123.72	166.50	118.41	188.94	59.56	1977.11	0.381	0.0171
		[0.64]	[1.58]	[29.28]	[20.00]	[42.92]	[1974.02,1985.11]		
HNR	4	516.53	1042.52	676.40	1349.59	99.52	1975.02	1.78E-006	1.11E-014
		[1.13]	[2.90]	[90.80]	[83.16]	[29.47]	[1972.03,1976.08]		
HMOB	3	47.24	84.23	98.55	56.83	−42.33	1981.08	0.0106	3.35E-009
		[0.34]	[0.84]	[7.07]	[9.78]	[10.75]	[1979.02,1990.06]		
CONTC	1	16.90	23.69	28.53	17.93	−37.14	1980.05	0.103	0.00169
		[0.20]	[0.52]	[2.70]	[2.95]	[11.95]	[1974.11,1994.11]		
CONPC	6	17.32	20.18	24.62	14.88	−39.56	1980.05	0.207	0.205
		[0.21]	[0.53]	[2.83]	[3.09]	[14.33]	[1973.10,1999.09]		
CONQC	2	33.99	43.80	42.23	72.01	70.52	1990.12	0.626	0.0256
		[0.29]	[0.74]	[4.18]	[17.74]	[45.28]	[1987.07,1996.10]		
CONDO9	9	88.55	108.29	74.82	114.17	52.58	1965.12	0.754	0.0574
		[0.44]	[1.08]	[24.88]	[10.42]	[52.61]	[1960.02,1973.08]		
Trade									
MSMTQ	12	10.71	9.78	8.63	10.90	26.28	1974.11	0.969	0.403
		[0.14]	[0.35]	[1.47]	[1.45]	[27.24]	[1960.02,1999.12]		
MSMQ	12	14.50	14.39	11.64	16.91	45.29	1974.10	0.460	0.943
		[0.17]	[0.42]	[2.04]	[1.95]	[30.50]	[1960.02,1997.05]		
MSDQ	12	20.67	20.71	20.49	35.23	71.94	1991.02	1.00	0.987
		[0.20]	[0.50]	[2.10]	[17.06]	[85.10]	[1987.01,1998.03]		
MSNQ	3	12.36	13.65	10.37	14.95	44.21	1970.09	0.608	0.337
		[0.16]	[0.39]	[2.34]	[1.47]	[35.52]	[1960.02,1992.03]		
WTQ	3	15.24	16.31	11.97	18.30	52.85	1970.11	0.515	0.546
		[0.18]	[0.45]	[2.93]	[1.98]	[40.96]	[1960.02,1989.10]		
WTDQ	5	16.85	19.52	17.63	21.46	21.73	1974.12	0.964	0.151
		[0.19]	[0.46]	[2.42]	[2.45]	[21.74]	[1960.02,1999.12]		
WTNQ	4	20.79	23.27	13.27	26.67	100.95	1970.07	0.0997	0.298
		[0.21]	[0.52]	[4.35]	[2.54]	[68.57]	[1962.03,1978.09]		
RTQ	11	12.21	15.32	8.52	16.96	99.11	1970.03	0.170	0.0370
		[0.17]	[0.41]	[3.13]	[1.53]	[75.30]	[1961.12,1978.07]		
RTDQ	2	27.13	39.65	28.16	44.54	58.16	1970.10	0.254	0.000615
		[0.26]	[0.64]	[6.18]	[4.03]	[37.52]	[1960.02,1984.02]		
RTNQ	12	8.53	9.54	10.46	8.17	−21.85	1980.04	0.883	0.291
		[0.13]	[0.33]	[1.14]	[1.39]	[15.83]	[1960.02,1999.12]		
Inventories									
IVMTQ	3	3.60	5.50	5.10	6.39	25.34	1981.10	0.613	1.29E-006
		[0.09]	[0.21]	[0.44]	[0.65]	[16.66]	[1963.10,1999.12]		
IVMFGQ	12	4.01	4.50	4.68	3.16	−32.41	1982.11	0.885	0.249
		[0.09]	[0.22]	[0.41]	[1.13]	[24.81]	[1964.05,1999.12]		
IVMFDQ	12	5.04	5.34	5.62	4.60	−18.03	1982.01	1.00	0.602
		[0.10]	[0.26]	[0.62]	[1.03]	[20.43]	[1960.02,1999.12]		
IVMFNQ	2	5.20	5.98	5.62	7.10	26.18	1982.03	0.928	0.172
		[0.10]	[0.25]	[0.61]	[1.08]	[23.54]	[1960.02,1999.12]		
IVWRQ	12	7.40	12.23	13.01	6.45	−50.40	1982.11	0.0732	5.63E-009
		[0.12]	[0.31]	[0.81]	[2.21]	[17.25]	[1980.02,1988.04]		
IVRRQ	12	8.05	9.58	10.18	5.74	−43.65	1982.10	0.520	0.0964
		[0.13]	[0.32]	[0.92]	[2.32]	[23.38]	[1974.11,1996.11]		
IVSRQ	12	15.73	16.82	12.46	20.58	65.11	1974.09	0.123	0.522
		[0.18]	[0.44]	[2.31]	[2.15]	[35.16]	[1960.02,1981.12]		
IVSRMQ	12	23.54	25.69	19.17	31.31	63.36	1974.09	0.125	0.400
		[0.22]	[0.54]	[3.47]	[3.22]	[34.03]	[1962.08,1985.11]		
IVSRWQ	2	19.79	21.18	16.79	31.49	87.57	1981.11	0.0125	0.520
		[0.20]	[0.49]	[2.36]	[3.62]	[34.04]	[1976.06,1987.08]		
IVSRRQ	5	19.13	24.40	12.79	28.66	124.15	1970.08	0.0298	0.0320
		[0.21]	[0.53]	[4.35]	[2.64]	[79.02]	[1963.05,1974.10]		
Orders									
MOCMQ	12	25.78	30.18	20.68	36.20	75.01	1974.04	0.0457	0.113
		[0.23]	[0.56]	[4.09]	[3.26]	[38.02]	[1967.07,1985.03]		
MDOQ	6	33.93	44.62	41.49	76.47	84.30	1990.09	0.0297	0.00214
		[0.25]	[0.63]	[3.35]	[10.69]	[29.76]	[1988.05,1993.06]		
MSONDQ	9	72.18	78.34	62.06	90.02	45.06	1974.06	0.463	0.442
		[0.38]	[0.95]	[11.46]	[9.71]	[31.01]	[1960.02,1999.12]		
MO	6	20.72	25.60	24.87	73.76	196.54	1991.02	0.0432	0.0235
		[0.20]	[0.49]	[2.00]	[16.24]	[69.49]	[1990.08,1991.09]		
MOWU	6	29.75	37.66	35.10	63.67	81.37	1990.09	0.0622	0.0110
		[0.24]	[0.59]	[3.00]	[9.56]	[31.33]	[1987.11,1993.12]		
MDO	6	33.93	45.33	42.65	78.63	84.37	1990.10	0.0491	0.00111
		[0.25]	[0.63]	[3.34]	[11.77]	[31.15]	[1988.07,1993.06]		
MDUWU	6	36.17	46.40	42.95	81.46	89.64	1990.09	0.0251	0.00661
		[0.26]	[0.65]	[3.62]	[11.56]	[31.31]	[1988.06,1993.05]		
MNO	12	12.39	16.92	16.03	23.43	46.10	1982.11	0.547	0.00234
		[0.17]	[0.41]	[1.47]	[3.98]	[28.21]	[1973.08,1994.09]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	20.16	21.75	22.84	4.66	−79.58	1990.11	0.247	0.446
		[0.20]	[0.49]	[1.99]	[7.88]	[34.55]	[1988.08,1994.11]		
MU	3	7.72	8.67	7.02	9.47	34.85	1973.12	0.730	0.253
		[0.12]	[0.31]	[1.34]	[0.94]	[29.07]	[1960.02,1999.12]		
MDU	3	8.07	8.89	7.18	9.73	35.49	1973.12	0.732	0.342
		[0.13]	[0.31]	[1.40]	[0.98]	[29.77]	[1960.02,1999.12]		
MNU	12	17.00	19.97	20.68	11.17	−45.99	1990.10	0.744	0.106
		[0.18]	[0.46]	[1.76]	[6.21]	[30.38]	[1984.05,1999.12]		
MPCON	5	74.91	74.80	41.54	80.63	94.12	1965.12	0.392	0.989
		[0.38]	[0.93]	[18.28]	[7.66]	[87.41]	[1960.02,1969.08]		
MPCONQ	9	74.18	70.74	76.43	60.54	−20.80	1980.07	0.957	0.636
		[0.37]	[0.91]	[8.42]	[11.27]	[17.14]	[1960.02,1999.12]		
Consumption									
GMCQ	8	5.99	7.26	6.42	7.90	23.08	1974.07	0.936	0.0596
		[0.11]	[0.28]	[0.95]	[0.83]	[22.38]	[1960.02,1999.12]		
GMCDQ	8	28.22	34.92	26.96	40.64	50.76	1974.06	0.318	0.0544
		[0.25]	[0.63]	[4.98]	[4.22]	[31.92]	[1960.02,1986.01]		
GMCNQ	12	7.26	6.99	6.85	16.08	134.73	1991.02	0.740	0.745
		[0.12]	[0.30]	[0.76]	[6.20]	[94.12]	[1989.08,1993.06]		
GMCSQ	10	3.65	3.96	3.07	4.73	54.10	1974.09	0.285	0.448
		[0.09]	[0.22]	[0.56]	[0.52]	[33.05]	[1960.02,1983.05]		
GMCANQ	5	73.60	103.67	97.86	227.62	132.59	1990.12	0.0710	0.00390
		[0.44]	[1.09]	[9.81]	[45.30]	[51.83]	[1990.04,1993.02]		
Money and credit									
FM1	9	4.36	4.85	3.72	6.33	70.20	1980.02	0.0830	0.343
		[0.10]	[0.24]	[0.63]	[0.72]	[34.61]	[1966.06,1986.10]		
FM2	12	2.30	2.65	2.96	2.10	−29.00	1980.07	0.711	0.229
		[0.07]	[0.18]	[0.34]	[0.45]	[17.33]	[1960.02,1999.12]		
FM3	8	2.50	2.94	2.66	3.62	36.22	1981.11	0.566	0.108
		[0.07]	[0.18]	[0.31]	[0.47]	[23.67]	[1960.09,1999.12]		
FML	12	3.40	2.93	2.87	6.99	143.92	1991.02	0.624	0.150
		[0.08]	[0.19]	[0.31]	[2.50]	[91.17]	[1988.11,1992.08]		
FM2DQ	10	2.86	3.78	4.04	2.43	−40.03	1982.08	0.435	0.00714
		[0.08]	[0.20]	[0.34]	[0.78]	[19.88]	[1971.06,1994.10]		
FMFBA	11	2.57	2.52	2.45	4.11	67.93	1990.12	0.871	0.871
		[0.07]	[0.18]	[0.27]	[1.26]	[54.93]	[1982.02,1998.08]		
FMBASE	12	4.00	3.93	2.72	4.34	59.47	1970.07	0.590	0.874
		[0.09]	[0.23]	[0.83]	[0.48]	[51.84]	[1960.02,1986.09]		
FMRRA	11	10.78	7.58	6.66	10.08	51.40	1982.01	0.721	0.00332
		[0.14]	[0.35]	[1.18]	[1.95]	[39.68]	[1960.02,1999.12]		
FMRNBA	1	17.08	22.94	10.65	26.19	145.86	1970.04	0.0886	0.0205
		[0.22]	[0.54]	[5.10]	[2.62]	[120.24]	[1960.08,1971.06]		
FMRNBC	1	14.91	19.62	10.80	21.95	103.34	1970.04	0.152	0.0187
		[0.20]	[0.47]	[4.01]	[2.06]	[77.91]	[1960.02,1972.10]		
FCLS	2	3.97	3.91	5.05	3.13	−38.01	1980.05	0.422	0.911
		[0.11]	[0.27]	[0.77]	[0.64]	[15.76]	[1974.02,1990.01]		
FCSGV	3	9.49	13.38	17.32	8.20	−52.68	1981.12	0.00697	0.00505
		[0.18]	[0.44]	[1.67]	[1.92]	[11.99]	[1978.10,1987.04]		
FCLRE	3	2.95	2.39	3.26	1.59	−51.29	1981.08	0.378	0.221
		[0.10]	[0.25]	[0.61]	[0.58]	[19.94]	[1974.02,1987.07]		
FCLIN	3	3.88	4.80	2.53	5.85	131.38	1977.11	0.0560	0.117
		[0.12]	[0.29]	[0.95]	[0.65]	[90.52]	[1974.02,1979.02]		
FCLNBF	1	19.54	19.34	25.57	13.11	−48.73	1981.09	0.110	0.941
		[0.29]	[0.60]	[3.37]	[3.37]	[14.79]	[1974.12,1985.12]		
FCLNQ	7	8.53	10.57	7.22	11.90	64.82	1970.09	0.186	0.0340
		[0.13]	[0.33]	[1.66]	[1.05]	[40.67]	[1960.02,1976.06]		
FCLBMC	8	30780.81	26104.21	16402.27	39617.63	141.54	1980.03	0.114	0.327
		[9.38]	[23.26]	[5761.62]	[6799.82]	[94.43]	[1961.02,1983.07]		
CCI30M	12	86.65	67.87	44.84	90.23	101.24	1974.11	0.259	0.0947
		[0.48]	[1.12]	[14.62]	[14.41]	[73.07]	[1960.02,1978.04]		
CCINT	8	2299715.47	2878813.13	2100066.04	5993801.49	185.41	1990.09	0.00446	0.210
		[107.12]	[280.71]	[469034.13]	[938068.27]	[77.84]	[1988.03,1992.03]		
CCINV	7	1171140.42	1059468.32	786577.48	1696213.61	115.64	1982.10	0.310	0.601
		[72.79]	[190.74]	[235967.13]	[360445.75]	[79.28]	[1976.02,1986.02]		
Stock prices									
FSNCOM	2	33.54	60.56	38.75	65.82	69.85	1970.03	0.0797	1.58E-010
		[0.28]	[0.69]	[8.83]	[4.33]	[40.27]	[1963.02,1975.02]		
FSNIN	2	35.06	67.90	69.03	4.67	−93.23	1991.02	0.452	1.74E-011
		[0.32]	[0.77]	[4.54]	[33.95]	[49.18]	[1990.05,1992.09]		
FSNTR	2	50.98	87.62	90.75	65.29	−28.05	1990.08	0.754	3.61E-009
		[0.36]	[0.87]	[6.12]	[16.35]	[18.66]	[1981.01,1999.12]		
FSNUT	5	32.30	52.07	62.69	39.42	−37.12	1980.05	0.0197	3.84E-007
		[0.28]	[0.69]	[4.82]	[5.27]	[9.69]	[1976.04,1988.12]		
FSNFI	2	46.25	81.92	75.40	109.16	44.78	1982.08	0.166	2.21E-009
		[0.35]	[0.85]	[6.10]	[12.46]	[20.25]	[1976.12,1990.07]		

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Series	p	σ_E	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	33.18	58.62	46.75	67.14	43.59	1974.06	0.114	1.27E-009
		[0.28]	[0.69]	[5.97]	[5.06]	[21.29]	[1962.10,1984.09]		
FSPIN	2	33.92	59.72	47.43	68.55	44.51	1974.06	0.103	1.54E-009
		[0.28]	[0.70]	[6.08]	[5.16]	[21.49]	[1963.03,1984.06]		
FSPCAP	1	40.76	70.01	39.91	77.96	95.34	1970.04	0.0125	3.56E-009
		[0.30]	[0.75]	[9.93]	[5.11]	[50.28]	[1965.06,1973.11]		
FSPTR	2	50.21	84.93	88.95	62.52	−29.71	1990.08	0.720	3.18E-007
		[0.38]	[0.97]	[6.85]	[16.16]	[18.96]	[1981.05,1999.12]		
FSPUT	5	33.61	53.40	62.50	39.91	−36.15	1980.04	0.0314	3.65E-007
		[0.27]	[0.66]	[4.62]	[5.63]	[10.17]	[1975.04,1990.10]		
FSPFI	2	51.07	88.03	76.28	125.43	64.45	1982.08	0.0157	7.19E-008
		[0.38]	[0.97]	[7.21]	[12.87]	[22.94]	[1978.08,1985.12]		
Dividends and volume									
FSDXP	1	35.84	62.49	39.95	68.44	71.30	1970.04	0.0966	1.48E-008
		[0.29]	[0.73]	[9.47]	[4.87]	[42.41]	[1961.09,1974.05]		
FSPXE	4	41.33	62.24	40.14	66.58	65.88	1970.01	0.345	5.37E-005
		[0.31]	[0.77]	[11.80]	[5.23]	[50.46]	[1960.02,1978.01]		
FSNVV3	12	34.17	38.27	51.71	23.04	−55.44	1982.04	0.108	0.485
		[0.36]	[0.99]	[7.47]	[7.95]	[16.67]	[1980.04,1996.06]		
Interest rates									
FYFF	12	350.68	970.57	512.04	1226.50	139.53	1974.02	7.00E-006	1.89E-017
		[1.16]	[2.87]	[109.94]	[82.13]	[53.87]	[1970.07,1975.05]		
FYCP	12	363.31	862.99	332.56	1159.04	248.52	1974.02	2.03E-010	1.61E-014
		[1.13]	[2.71]	[95.36]	[71.24]	[102.21]	[1971.11,1974.06]		
FYGM3	12	316.41	779.53	385.53	959.40	148.85	1970.11	6.17E-006	2.24E-016
		[1.02]	[2.53]	[90.90]	[61.42]	[60.80]	[1967.06,1971.05]		
FYGM6	12	313.91	751.04	441.12	892.52	102.33	1970.11	0.000277	4.68E-017
		[0.98]	[2.43]	[84.55]	[57.13]	[40.89]	[1966.04,1971.12]		
FYGT1	12	349.95	736.13	542.41	975.04	79.76	1975.03	7.21E-005	1.46E-014
		[0.96]	[2.39]	[61.25]	[68.02]	[23.86]	[1970.09,1977.04]		
FYGT5	6	302.12	480.35	296.76	658.54	121.91	1974.11	3.28E-005	1.27E-005
		[0.87]	[2.15]	[52.66]	[51.88]	[43.08]	[1970.07,1976.08]		
FYGT10	12	259.02	399.07	248.71	573.68	130.66	1975.02	5.15E-006	4.06E-005
		[0.79]	[1.97]	[41.98]	[45.23]	[42.97]	[1971.02,1976.04]		
FYAAAC	12	184.09	277.95	155.36	420.32	170.55	1975.02	4.18E-006	0.000678
		[0.71]	[1.77]	[33.97]	[36.60]	[63.67]	[1971.01,1976.02]		
FYBAAC	4	173.41	273.84	144.90	432.86	198.72	1975.03	1.87E-008	9.18E-005
		[0.69]	[1.71]	[30.81]	[34.22]	[67.77]	[1972.04,1975.12]		
FWAFIT	3	275.46	440.65	635.44	329.33	−48.17	1980.03	0.00987	0.000567
		[1.20]	[2.56]	[70.19]	[53.06]	[10.12]	[1978.08,1986.02]		
FYFHA	4	252.84	400.68	204.22	642.98	214.85	1975.03	6.39E-007	0.000581
		[0.89]	[2.21]	[51.93]	[57.67]	[84.89]	[1971.07,1975.12]		
Exchange rates									
EXRUS	2	18.51	23.98	22.20	78.88	255.23	1991.02	0.00869	0.0712
		[0.25]	[0.71]	[2.85]	[15.86]	[84.72]	[1990.09,1991.10]		
EXRGER	1	29.71	31.60	28.37	131.84	364.80	1991.02	0.000207	0.668
		[0.30]	[0.86]	[4.07]	[22.68]	[104.14]	[1990.10,1991.07]		
EXRSW	1	33.29	41.17	38.03	138.34	263.72	1991.02	0.00356	0.116
		[0.32]	[0.91]	[4.70]	[26.15]	[82.11]	[1990.09,1991.08]		
EXRJAN	3	30.21	36.78	35.16	86.97	147.38	1991.02	0.366	0.169
		[0.31]	[0.89]	[4.55]	[25.31]	[78.79]	[1989.08,1992.08]		
EXRUK	3	26.91	28.95	26.40	107.91	308.67	1991.02	0.00681	0.633
		[0.29]	[0.84]	[4.01]	[22.34]	[104.98]	[1990.08,1991.09]		
EXRCAN	12	12.12	10.29	6.71	11.11	65.64	1980.05	0.961	0.260
		[0.18]	[0.52]	[3.55]	[1.70]	[91.11]	[1975.02,1999.12]		
Producer prices									
PWFSA	9	4.12	6.25	5.97	10.59	77.44	1990.11	0.316	0.000165
		[0.10]	[0.25]	[0.54]	[2.13]	[39.16]	[1989.06,1995.11]		
PWFCSA	9	5.23	7.12	6.80	13.97	105.56	1990.12	0.197	0.00567
		[0.11]	[0.28]	[0.65]	[2.98]	[48.02]	[1989.12,1993.12]		
PWIMSA	4	4.10	7.53	3.92	9.18	134.19	1970.11	0.000616	5.72E-008
		[0.11]	[0.27]	[1.03]	[0.70]	[64.03]	[1965.08,1971.09]		
PWCMSA	11	20.33	26.34	20.75	67.52	225.35	1982.11	1.26E-006	0.0489
		[0.24]	[0.59]	[2.92]	[7.94]	[59.67]	[1981.09,1984.01]		
PWFXSA	9	4.37	5.07	4.36	9.46	117.12	1982.11	0.0490	0.287
		[0.12]	[0.28]	[0.65]	[1.61]	[49.11]	[1979.11,1986.12]		
PW160A	12	17.91	15.52	22.44	10.78	−51.96	1981.12	0.188	0.353
		[0.23]	[0.66]	[3.78]	[3.13]	[16.13]	[1975.04,1993.08]		
PW150A	9	16.56	16.24	22.72	11.19	−50.75	1982.01	0.293	0.909
		[0.24]	[0.69]	[4.03]	[3.56]	[17.93]	[1977.10,1999.12]		
PW561	5	51.03	76.86	53.09	252.15	374.96	1982.11	1.01E-014	0.00419
		[0.41]	[1.01]	[8.34]	[22.65]	[85.95]	[1981.10,1983.01]		
PWCM	9	5.32	5.13	5.80	3.42	−40.98	1981.12	0.476	0.764
		[0.11]	[0.27]	[0.69]	[1.09]	[20.08]	[1973.06,1999.12]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	4.54	6.96	5.98	12.19	103.73	1982.10	0.00392	0.000275
		[0.12]	[0.29]	[0.66]	[1.52]	[33.86]	[1981.01,1985.11]		
PSM99Q	12	13.83	15.41	6.96	18.75	169.29	1970.09	0.00628	0.324
		[0.17]	[0.43]	[2.76]	[1.74]	[109.65]	[1964.11,1973.07]		
PSCCOM	12	19.29	18.32	11.01	20.62	87.35	1970.06	0.462	0.685
		[0.21]	[0.52]	[4.50]	[2.52]	[79.95]	[1960.02,1974.10]		
PSCFOO	12	29.39	30.94	11.70	35.14	200.31	1970.02	0.155	0.695
		[0.27]	[0.67]	[8.61]	[4.02]	[223.50]	[1960.02,1971.07]		
PSCMAT	6	19.85	21.18	11.44	23.53	105.56	1970.03	0.205	0.550
		[0.20]	[0.50]	[4.65]	[2.28]	[85.90]	[1960.02,1976.01]		
PZFR	6	22.14	18.50	21.40	10.55	−50.71	1982.11	0.772	0.306
		[0.27]	[0.78]	[3.91]	[6.48]	[31.59]	[1976.02,1999.12]		
PCGOLD	7	46.76	73.25	83.28	33.12	−60.24	1990.09	0.277	0.00702
		[0.45]	[1.30]	[10.31]	[20.62]	[25.24]	[1987.09,1999.04]		
Consumer prices									
PUNEW	9	1.93	3.03	2.05	3.50	70.48	1973.12	0.0722	3.30E-005
		[0.07]	[0.17]	[0.42]	[0.30]	[38.11]	[1966.05,1984.08]		
PU81	12	4.12	4.35	4.78	2.56	−46.52	1982.08	0.749	0.725
		[0.12]	[0.28]	[0.67]	[1.36]	[29.48]	[1979.01,1999.12]		
PUH	9	2.17	4.50	3.75	5.41	44.27	1980.05	0.118	2.40E-011
		[0.09]	[0.21]	[0.43]	[0.47]	[20.91]	[1969.06,1987.02]		
PU83	6	3.99	3.16	1.95	3.78	94.03	1974.01	0.357	0.0719
		[0.09]	[0.23]	[0.73]	[0.53]	[77.73]	[1960.02,1980.03]		
PU84	8	5.61	6.98	5.63	10.65	89.12	1982.01	0.00950	0.0496
		[0.11]	[0.28]	[0.75]	[1.23]	[33.22]	[1975.03,1985.07]		
PU85	6	2.14	2.26	3.89	1.94	−50.15	1970.01	0.107	0.695
		[0.07]	[0.18]	[0.68]	[0.30]	[11.63]	[1963.07,1975.07]		
PUC	9	3.10	3.94	3.34	5.70	70.71	1982.02	0.0733	0.0370
		[0.09]	[0.21]	[0.43]	[0.73]	[30.92]	[1973.07,1988.10]		
PUCD	12	2.66	3.50	3.04	4.42	45.17	1981.09	0.270	0.00868
		[0.08]	[0.19]	[0.36]	[0.51]	[24.10]	[1970.07,1998.07]		
PUS	9	2.13	3.39	2.51	4.42	75.90	1975.02	0.00858	1.82E-005
		[0.07]	[0.18]	[0.37]	[0.40]	[30.25]	[1967.11,1979.11]		
PUXF	9	2.13	3.24	2.66	3.99	50.19	1980.02	0.0678	1.46E-005
		[0.07]	[0.17]	[0.31]	[0.36]	[22.13]	[1967.12,1987.02]		
PUXHS	12	2.52	3.17	2.42	3.54	46.49	1973.12	0.404	0.0268
		[0.07]	[0.18]	[0.47]	[0.33]	[31.66]	[1960.02,1993.03]		
PUXM	9	2.23	3.25	2.36	3.68	56.01	1973.12	0.164	0.000224
		[0.07]	[0.18]	[0.44]	[0.31]	[32.18]	[1963.10,1987.06]		
GMDC	9	1.54	2.18	1.80	3.05	69.11	1981.11	0.0107	0.000373
		[0.06]	[0.14]	[0.20]	[0.30]	[24.95]	[1976.08,1987.06]		
GMDCD	12	2.61	3.29	3.36	0.93	−72.30	1991.01	0.828	0.0411
		[0.08]	[0.19]	[0.31]	[1.77]	[52.68]	[1988.02,1996.10]		
GMDCN	9	3.01	3.76	3.19	5.46	71.41	1982.02	0.0848	0.0553
		[0.09]	[0.21]	[0.42]	[0.72]	[31.97]	[1973.06,1989.05]		
GMDCS	9	1.35	1.76	0.92	2.14	131.87	1970.11	0.00406	0.0141
		[0.06]	[0.14]	[0.27]	[0.18]	[70.59]	[1964.07,1972.07]		
Miscellaneous									
PMI	12	2677.29	2970.86	3495.57	1897.58	−45.71	1981.09	0.0987	0.337
		[2.37]	[5.89]	[343.56]	[491.36]	[15.04]	[1974.04,1993.03]		
PMP	12	3978.43	3728.61	4015.89	1877.25	−53.25	1982.10	0.566	0.587
		[2.91]	[7.22]	[457.09]	[1160.36]	[29.38]	[1972.01,1996.03]		
PMNO	4	4225.44	4521.87	5106.89	2091.83	−59.04	1982.06	0.122	0.556
		[3.04]	[7.55]	[516.11]	[1051.89]	[21.01]	[1977.04,1991.08]		
PMDEL	12	3276.74	5171.46	6227.44	2689.93	−56.81	1981.11	0.00468	7.52E-005
		[2.97]	[7.36]	[522.52]	[801.01]	[13.36]	[1980.09,1989.10]		
PMNV	12	3558.66	3097.00	3444.07	2220.18	−35.54	1981.12	0.693	0.232
		[2.67]	[6.62]	[422.44]	[671.45]	[21.04]	[1965.10,1999.12]		
PMEMP	12	3003.31	2941.32	3390.66	2022.21	−40.36	1981.09	0.323	0.852
		[2.48]	[6.14]	[375.33]	[536.79]	[17.15]	[1969.03,1999.12]		
PMCP	12	4432.76	4263.93	3832.43	7962.52	107.77	1990.08	0.143	0.758
		[3.18]	[7.88]	[533.46]	[1561.80]	[49.97]	[1987.05,1995.11]		
HHSNTN	0	3753.50	4899.70	4457.10	34111.10	665.32	1991.02	6.59E-015	0.0218
		[3.03]	[7.52]	[436.50]	[3546.11]	[109.30]	[1990.11,1991.03]		
F6EDM	12	70.47	58.20	93.58	45.56	−51.31	1974.03	0.174	0.196
		[0.43]	[1.08]	[17.08]	[10.20]	[14.07]	[1971.02,1996.07]		
FTMC6	12	107.50	125.16	219.57	119.92	−45.39	1970.03	0.406	0.154
		[0.51]	[1.23]	[49.77]	[11.73]	[13.48]	[1966.05,1972.06]		
FTMM6	5	67.57	68.38	72.85	41.00	−43.72	1982.11	0.828	0.927
		[0.41]	[1.04]	[8.82]	[21.82]	[30.72]	[1970.11,1999.12]		

Results for SupW tests for structural change in recession volatility for individual series, when a nonlinear AR model with constant parameters is used for the conditional mean. The columns headed σ_{R} and σ_0 contain estimates of the conditional standard deviation during expansions and recessions under the null hypothesis, respectively. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation during recessions before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated volatility break date is given in the column headed τ_v, with the 90% confidence interval given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional volatility. Figures in brackets below parameter estimates are standard errors.

Table A.11: Tests for structural change in expansion volatility

Series	p	σ_{R}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production									
IP	3	9.58	7.14	8.38	5.56	−33.66	1984.03	0.000363	0.00543
		[0.32]	[0.13]	[0.43]	[0.48]	[6.70]	[1982.06,1989.12]		
IPP	3	9.99	7.36	7.91	5.39	−31.78	1992.06	0.00852	0.000957
		[0.30]	[0.12]	[0.33]	[0.63]	[8.48]	[1990.10,1997.08]		
IPF	3	10.54	7.90	8.39	6.19	−26.27	1992.04	0.0652	0.00249
		[0.31]	[0.13]	[0.37]	[0.69]	[8.79]	[1989.05,1999.12]		
IPC	0	12.25	9.75	10.42	7.32	−29.82	1992.07	0.0441	0.0308
		[0.36]	[0.15]	[0.48]	[0.92]	[9.44]	[1990.07,1999.10]		
IPCD	1	34.33	24.17	25.66	22.65	−11.74	1980.12	0.913	0.00221
		[0.61]	[0.25]	[1.74]	[1.76]	[9.12]	[1960.02,1999.12]		
IPCN	2	8.29	8.14	8.62	6.69	−22.34	1991.06	0.0975	0.857
		[0.31]	[0.12]	[0.36]	[0.63]	[7.95]	[1986.08,1999.12]		
IPE	5	15.15	11.30	11.98	8.94	−25.38	1992.04	0.122	0.00365
		[0.39]	[0.16]	[0.56]	[1.04]	[9.36]	[1987.09,1999.12]		
IPI	3	12.38	9.17	10.03	6.08	−39.33	1992.06	0.000535	0.00204
		[0.34]	[0.14]	[0.43]	[0.82]	[8.56]	[1991.06,1996.01]		
IPM	12	11.85	9.03	10.57	6.52	−38.28	1986.03	7.08E-005	0.0129
		[0.36]	[0.14]	[0.53]	[0.67]	[7.07]	[1985.02,1990.11]		
IPMD	12	19.05	12.66	18.13	11.30	−37.69	1967.09	0.000124	7.84E-005
		[0.43]	[0.17]	[1.33]	[0.66]	[5.84]	[1965.10,1971.08]		
IPMND	10	15.50	10.46	11.10	7.97	−28.21	1992.12	0.0771	4.14E-005
		[0.37]	[0.15]	[0.51]	[1.01]	[9.68]	[1990.08,1999.12]		
IPMFG	3	10.67	7.79	9.09	6.17	−32.18	1984.01	0.00138	0.00343
		[0.33]	[0.13]	[0.48]	[0.54]	[6.96]	[1982.05,1991.01]		
IPD	3	14.96	10.22	11.76	8.30	−29.45	1984.01	0.0142	0.000622
		[0.40]	[0.16]	[0.69]	[0.77]	[7.71]	[1980.04,1993.01]		
IPN	3	9.86	7.43	8.14	5.29	−35.00	1991.06	0.00220	0.00448
		[0.31]	[0.13]	[0.36]	[0.63]	[8.29]	[1990.05,1996.04]		
IPMIN	1	13.99	12.83	14.22	10.38	−27.03	1986.11	0.0293	0.467
		[0.43]	[0.17]	[0.74]	[0.98]	[7.88]	[1982.11,1996.02]		
IPUT	10	14.83	17.29	12.57	22.11	75.96	1980.12	2.72E-009	0.226
		[0.48]	[0.19]	[1.02]	[1.03]	[16.54]	[1978.01,1981.11]		
IPX	3	748.45	557.91	680.41	459.78	−32.42	1984.03	0.00257	0.0110
		[3.03]	[1.27]	[42.53]	[38.06]	[7.01]	[1982.06,1990.09]		
IPXMCA	3	827.05	641.85	750.26	506.18	−32.53	1984.01	0.000933	0.0205
		[3.01]	[1.21]	[39.39]	[44.07]	[6.86]	[1982.02,1990.06]		
IPXDCA	3	1139.09	764.25	902.86	655.93	−27.35	1984.01	0.0564	0.000746
		[3.69]	[1.54]	[64.05]	[56.62]	[8.12]	[1980.01,1994.09]		
IPXNCA	3	820.75	626.45	712.94	436.51	−38.77	1991.06	0.000202	0.0104
		[3.04]	[1.27]	[34.39]	[50.96]	[7.73]	[1990.09,1995.01]		
IPXMIN	1	1475.71	1134.82	1332.40	900.12	−32.44	1986.11	0.00704	0.0315
		[4.40]	[1.84]	[81.62]	[88.96]	[7.86]	[1984.10,1993.10]		
IPXUT	6	1460.26	1636.10	1229.19	1879.44	52.90	1980.12	0.00147	0.397
		[5.03]	[2.11]	[128.15]	[99.10]	[17.86]	[1975.12,1982.10]		
GMPYQ	9	4.53	4.03	3.41	4.24	24.62	1969.10	0.451	0.340
		[0.24]	[0.10]	[0.38]	[0.23]	[15.55]	[1960.02,1984.11]		
GMYXPQ	9	4.26	3.78	3.23	4.02	24.39	1972.05	0.222	0.261
		[0.22]	[0.09]	[0.29]	[0.19]	[12.49]	[1960.02,1982.04]		
(Un)employment									
LHEL	12	1937.29	1986.90	1818.52	2719.45	49.54	1993.07	0.000281	0.819
		[4.96]	[2.00]	[88.11]	[183.79]	[12.44]	[1989.07,1995.06]		
LHELX	4	46.89	43.35	54.79	37.14	−32.20	1973.11	0.000416	0.505
		[0.78]	[0.31]	[3.28]	[2.42]	[6.00]	[1971.08,1980.03]		
LHEM	8	2.86	3.09	3.58	2.42	−32.35	1984.08	0.000286	0.513
		[0.20]	[0.08]	[0.17]	[0.20]	[6.42]	[1982.04,1989.08]		
LHNAG	8	3.08	2.89	3.09	2.18	−29.48	1992.02	0.0243	0.551
		[0.19]	[0.08]	[0.14]	[0.25]	[8.70]	[1990.04,1998.10]		
LHUR	12	207.89	164.06	170.69	138.92	−18.61	1992.10	0.500	0.0221
		[1.47]	[0.59]	[8.02]	[15.62]	[9.92]	[1982.07,1999.12]		
LHU680	7	466.16	523.41	733.78	485.43	−33.85	1966.02	0.000487	0.313
		[2.54]	[1.02]	[53.28]	[22.64]	[5.71]	[1964.04,1969.11]		
LHU5	12	48.65	45.24	56.83	41.02	−27.82	1970.12	0.00892	0.527
		[0.78]	[0.32]	[3.86]	[2.33]	[6.39]	[1967.02,1978.04]		
LHU14	5	54.94	55.09	66.07	51.23	−22.46	1969.10	0.0486	0.981
		[0.82]	[0.33]	[4.34]	[2.57]	[6.40]	[1964.08,1980.08]		
LHU15	4	60.45	55.03	70.17	49.51	−29.45	1970.12	0.000893	0.367
		[0.83]	[0.33]	[4.27]	[2.58]	[5.65]	[1968.02,1976.02]		
LHU26	4	77.99	86.74	111.21	77.83	−30.01	1970.12	0.000213	0.330
		[1.01]	[0.41]	[6.37]	[3.85]	[5.30]	[1968.08,1975.07]		
LHU27	7	73.50	74.94	95.04	56.34	−40.71	1979.08	8.38E-009	0.865
		[0.98]	[0.39]	[4.37]	[4.20]	[5.20]	[1978.08,1982.07]		
LHCH	12	144.73	210.97	194.52	296.69	52.52	1989.09	0.00171	0.00604
		[1.64]	[0.72]	[10.32]	[23.55]	[14.56]	[1985.11,1991.08]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	2.22	1.60	2.09	1.02	−51.50	1983.07	5.73E-012	0.00231
		[0.15]	[0.06]	[0.10]	[0.11]	[5.58]	[1983.01,1985.09]		
LP	3	2.57	1.88	2.53	1.24	−51.06	1980.08	2.34E-012	0.00435
		[0.17]	[0.07]	[0.12]	[0.12]	[5.30]	[1980.02,1982.12]		
LPGD	3	4.86	3.29	4.32	1.99	−54.01	1984.02	4.10E-010	0.000913
		[0.23]	[0.09]	[0.23]	[0.25]	[6.37]	[1983.10,1986.10]		
LPMI	12	10.77	7.57	8.31	5.66	−31.90	1989.09	0.0758	0.00568
		[0.36]	[0.15]	[0.51]	[0.81]	[10.61]	[1987.05,1999.12]		
LPCC	5	11.38	9.60	12.69	5.65	−55.47	1984.03	9.83E-010	0.223
		[0.41]	[0.16]	[0.70]	[0.79]	[6.65]	[1983.11,1986.12]		
LPEM	3	5.07	2.87	3.85	1.68	−56.29	1983.10	1.02E-008	3.17E-006
		[0.23]	[0.09]	[0.23]	[0.25]	[7.06]	[1983.05,1986.11]		
LPED	5	7.05	4.16	5.41	2.63	−51.42	1983.10	2.11E-006	3.76E-005
		[0.28]	[0.11]	[0.34]	[0.38]	[7.66]	[1983.02,1987.11]		
LPEN	2	3.68	2.30	3.12	1.49	−52.35	1980.09	1.09E-010	2.45E-005
		[0.19]	[0.08]	[0.16]	[0.16]	[5.82]	[1980.02,1983.05]		
LPSP	6	1.79	1.32	1.56	1.01	−35.66	1984.02	5.94E-005	0.00286
		[0.13]	[0.05]	[0.08]	[0.09]	[6.44]	[1982.03,1988.08]		
LPTU	12	3.36	4.40	6.15	3.81	−38.00	1969.06	0.00120	0.125
		[0.28]	[0.11]	[0.50]	[0.29]	[6.86]	[1966.11,1975.05]		
LPT	12	2.76	2.10	2.51	1.53	−39.07	1985.03	7.89E-006	0.00965
		[0.17]	[0.07]	[0.12]	[0.15]	[6.49]	[1984.03,1989.03]		
LPFR	10	1.28	1.31	1.50	1.09	−27.55	1983.10	0.00149	0.792
		[0.13]	[0.05]	[0.07]	[0.08]	[6.09]	[1980.08,1989.10]		
LPS	10	1.89	1.80	2.08	1.36	−34.65	1985.09	9.67E-005	0.649
		[0.15]	[0.06]	[0.10]	[0.12]	[6.54]	[1984.03,1990.06]		
LPGOV	12	4.27	2.10	2.41	1.14	−52.89	1991.06	8.34E-005	1.09E-011
		[0.19]	[0.08]	[0.14]	[0.24]	[10.12]	[1991.03,1995.01]		
LW	4	143.24	110.42	133.37	87.22	−34.61	1984.04	0.000828	0.0325
		[1.37]	[0.55]	[7.82]	[7.87]	[7.04]	[1981.12,1989.08]		
LPHRM	12	317.13	212.45	250.47	163.43	−34.75	1984.04	0.00230	0.000507
		[1.85]	[0.74]	[14.77]	[16.77]	[7.72]	[1982.07,1991.09]		
LPMOSA	12	152.71	126.04	143.40	105.15	−26.67	1983.09	0.0275	0.103
		[1.36]	[0.55]	[8.19]	[8.98]	[7.53]	[1978.07,1993.05]		
Wages and salaries									
LEH	12	3.05	2.16	2.65	1.15	−56.62	1989.06	2.58E-009	0.00369
		[0.19]	[0.08]	[0.13]	[0.19]	[7.40]	[1989.02,1991.06]		
LEHCC	11	6.67	5.26	6.54	4.44	−32.07	1976.06	0.00119	0.0387
		[0.28]	[0.11]	[0.40]	[0.32]	[6.46]	[1973.03,1982.08]		
LEHM	11	4.09	3.04	3.68	2.40	−34.84	1980.11	0.000861	0.0126
		[0.22]	[0.09]	[0.22]	[0.22]	[7.09]	[1978.03,1987.03]		
LEHTU	11	4.29	4.09	5.50	2.97	−45.96	1981.02	1.24E-008	0.726
		[0.26]	[0.10]	[0.30]	[0.27]	[5.66]	[1980.04,1983.11]		
LEHTT	9	3.21	2.53	2.93	2.00	−31.71	1986.05	0.00251	0.0368
		[0.20]	[0.08]	[0.16]	[0.18]	[7.19]	[1984.10,1992.11]		
LEHFR	12	4.62	4.41	5.29	2.77	−47.75	1988.10	4.65E-009	0.693
		[0.26]	[0.10]	[0.23]	[0.32]	[6.37]	[1988.03,1990.11]		
LEHS	12	3.82	2.91	3.65	1.44	−60.55	1989.02	4.35E-014	0.0156
		[0.22]	[0.09]	[0.16]	[0.22]	[6.35]	[1988.11,1990.07]		
Construction									
HSFR	12	93.95	78.95	84.69	58.44	−30.99	1992.06	0.0260	0.105
		[1.02]	[0.41]	[3.87]	[7.33]	[9.21]	[1989.10,1998.08]		
HSNE	4	255.62	173.12	187.40	154.90	−17.34	1984.03	0.339	8.70E-005
		[1.54]	[0.62]	[10.45]	[11.81]	[7.81]	[1975.08,1999.12]		
HSMW	3	188.95	157.28	173.11	123.69	−28.55	1988.04	0.0241	0.105
		[1.49]	[0.60]	[8.76]	[12.76]	[8.21]	[1984.06,1996.05]		
HSSOU	12	124.44	93.10	99.81	78.87	−20.98	1988.04	0.185	0.00449
		[1.12]	[0.45]	[4.97]	[7.24]	[8.26]	[1981.10,1999.12]		
HSWST	2	166.03	125.23	133.85	113.09	−15.50	1985.01	0.358	0.00259
		[1.24]	[0.50]	[6.59]	[7.83]	[7.18]	[1972.10,1999.12]		
HSBR	2	97.28	63.22	70.19	42.28	−39.76	1991.05	0.00135	2.88E-005
		[0.96]	[0.39]	[3.46]	[5.99]	[9.04]	[1990.09,1996.02]		
HSBNE	4	145.39	118.58	132.97	98.55	−25.89	1985.01	0.0350	0.0914
		[1.40]	[0.53]	[7.26]	[8.57]	[7.61]	[1980.09,1995.04]		
HSBMW	12	139.81	102.08	114.96	65.26	−43.24	1990.06	0.000342	0.00886
		[1.33]	[0.50]	[5.79]	[9.78]	[8.98]	[1989.04,1994.05]		
HSBSOU	12	91.84	74.10	78.13	55.21	−29.33	1993.12	0.106	0.0608
		[1.08]	[0.41]	[3.65]	[7.89]	[10.63]	[1992.05,1999.12]		
HSBWST	1	140.44	93.94	100.06	76.67	−23.37	1990.05	0.214	0.000248
		[1.25]	[0.47]	[5.18]	[8.69]	[9.55]	[1986.06,1999.12]		
HNS	2	123.63	77.49	79.85	66.49	−16.73	1994.06	0.724	8.10E-007
		[1.07]	[0.42]	[3.74]	[8.08]	[10.84]	[1987.11,1999.12]		
HNSNE	12	211.08	171.88	180.56	132.27	−26.74	1995.12	0.291	0.0899
		[1.80]	[0.73]	[9.53]	[20.35]	[11.92]	[1993.09,1999.12]		
HNSMW	11	167.93	120.80	89.31	126.03	41.12	1978.05	0.371	0.00588
		[1.55]	[0.63]	[16.95]	[6.90]	[27.87]	[1974.02,1982.06]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	143.87	93.37	101.71	67.98	−33.16	1994.06	0.0411	0.000109
		[1.35]	[0.55]	[5.58]	[9.73]	[10.25]	[1991.11,1999.03]		
HNSWST	12	166.50	116.58	125.01	80.87	−35.31	1995.09	0.111	0.00514
		[1.58]	[0.64]	[7.38]	[15.19]	[12.74]	[1994.02,1999.12]		
HNR	4	1042.52	505.04	532.38	377.42	−29.11	1994.06	0.172	1.98E-015
		[2.89]	[1.13]	[26.94]	[58.19]	[11.50]	[1991.07,1999.12]		
HMOB	3	84.23	46.76	58.50	35.13	−39.94	1980.09	7.27E-006	1.29E-009
		[0.84]	[0.34]	[3.19]	[3.17]	[6.33]	[1979.06,1985.03]		
CONTC	1	23.69	16.78	20.27	13.32	−34.26	1984.02	0.000247	0.00140
		[0.52]	[0.20]	[1.11]	[1.10]	[6.51]	[1982.04,1988.12]		
CONPC	6	20.18	16.89	22.39	14.17	−36.73	1977.04	3.39E-005	0.137
		[0.52]	[0.21]	[1.38]	[0.97]	[5.82]	[1975.11,1981.09]		
CONQC	2	43.80	34.00	39.87	28.52	−28.47	1983.09	0.00608	0.0231
		[0.73]	[0.29]	[2.25]	[2.18]	[6.79]	[1980.06,1990.08]		
CONDO9	9	108.29	85.61	66.80	89.20	33.54	1966.05	0.296	0.0281
		[1.08]	[0.44]	[9.60]	[4.19]	[20.20]	[1960.02,1969.10]		
Trade									
MSMTQ	12	9.78	10.26	11.33	7.04	−37.85	1991.05	9.30E-005	0.658
		[0.35]	[0.14]	[0.46]	[0.80]	[7.46]	[1990.02,1994.08]		
MSMQ	12	14.39	13.98	15.46	12.14	−21.47	1983.12	0.0419	0.778
		[0.41]	[0.17]	[0.74]	[0.82]	[6.52]	[1978.11,1994.12]		
MSDQ	12	20.71	20.34	21.98	15.84	−27.93	1990.02	0.0136	0.865
		[0.50]	[0.20]	[0.94]	[1.55]	[7.72]	[1986.11,1996.05]		
MSNQ	3	13.65	11.70	13.30	9.86	−25.83	1983.04	0.0111	0.147
		[0.39]	[0.16]	[0.68]	[0.73]	[6.67]	[1979.10,1992.03]		
WTQ	3	16.31	15.12	17.35	11.05	−36.33	1987.02	4.59E-005	0.486
		[0.44]	[0.18]	[0.78]	[1.05]	[6.69]	[1985.10,1991.03]		
WTDQ	5	19.52	16.48	17.59	11.97	−31.92	1993.03	0.0175	0.0969
		[0.46]	[0.18]	[0.75]	[1.53]	[9.15]	[1991.04,1998.07]		
WTNQ	4	23.27	20.60	23.35	15.59	−33.24	1987.02	0.000333	0.248
		[0.51]	[0.21]	[1.05]	[1.42]	[6.80]	[1985.06,1992.01]		
RTQ	11	15.32	11.84	13.55	8.32	−38.63	1988.01	8.69E-005	0.0150
		[0.40]	[0.16]	[0.64]	[0.92]	[7.36]	[1986.12,1992.04]		
RTDQ	2	39.65	27.10	30.37	17.66	−41.84	1990.06	0.000404	0.000325
		[0.63]	[0.25]	[1.49]	[2.53]	[8.79]	[1989.10,1994.09]		
RTNQ	12	9.54	8.22	10.17	6.43	−36.76	1979.07	1.09E-006	0.156
		[0.32]	[0.13]	[0.49]	[0.47]	[5.48]	[1978.05,1983.07]		
Inventories									
IVMTQ	3	5.50	3.60	4.51	3.32	−26.43	1968.12	0.00687	6.00E-007
		[0.21]	[0.08]	[0.29]	[0.16]	[5.94]	[1965.05,1975.03]		
IVMFGQ	12	4.50	3.77	4.22	3.64	−13.75	1968.08	0.630	0.0706
		[0.21]	[0.09]	[0.31]	[0.17]	[7.57]	[1960.02,1994.02]		
IVMFDQ	12	5.34	4.85	5.71	4.49	−21.35	1972.02	0.0811	0.372
		[0.25]	[0.10]	[0.37]	[0.24]	[6.66]	[1965.10,1985.02]		
IVMFNQ	2	5.98	5.08	5.62	4.14	−26.31	1986.12	0.0117	0.111
		[0.25]	[0.10]	[0.26]	[0.35]	[7.02]	[1983.11,1994.10]		
IVWRQ	12	12.23	7.12	7.69	4.92	−36.03	1992.11	0.00315	1.59E-010
		[0.30]	[0.12]	[0.33]	[0.65]	[8.86]	[1991.04,1997.01]		
IVRRQ	12	9.58	7.86	8.43	6.28	−25.57	1990.03	0.0513	0.0496
		[0.32]	[0.13]	[0.38]	[0.63]	[8.21]	[1986.05,1998.08]		
IVSRQ	12	16.82	15.12	16.32	10.23	−37.31	1993.03	0.00219	0.311
		[0.44]	[0.18]	[0.69]	[1.40]	[8.96]	[1991.12,1997.02]		
IVSRMQ	12	25.69	22.97	24.61	16.48	−33.04	1993.01	0.00633	0.265
		[0.53]	[0.21]	[1.01]	[2.01]	[8.62]	[1992.01,1997.10]		
IVSRWQ	2	21.18	19.70	14.45	20.62	42.64	1965.12	0.0748	0.489
		[0.49]	[0.20]	[2.05]	[0.85]	[21.05]	[1960.02,1968.05]		
IVSRRQ	5	24.40	18.81	20.05	13.66	−31.85	1993.04	0.0605	0.0189
		[0.52]	[0.21]	[0.98]	[2.00]	[10.53]	[1991.06,1999.12]		
Orders									
MOCMQ	12	30.18	25.32	27.14	19.16	−29.42	1992.02	0.0143	0.0714
		[0.55]	[0.22]	[1.13]	[2.09]	[8.23]	[1990.05,1998.01]		
MDOQ	6	44.62	33.06	34.95	26.84	−23.22	1991.12	0.0932	0.000767
		[0.62]	[0.25]	[1.46]	[2.64]	[8.21]	[1988.02,1999.12]		
MSONDQ	9	78.34	71.62	54.19	76.15	40.52	1967.12	0.0244	0.372
		[0.92]	[0.37]	[6.14]	[3.13]	[16.92]	[1962.01,1970.07]		
MO	6	25.60	20.16	20.97	16.64	−20.64	1993.07	0.279	0.00907
		[0.49]	[0.20]	[0.86]	[1.80]	[9.17]	[1988.07,1999.12]		
MOWU	6	37.66	28.79	29.96	24.01	−19.88	1993.03	0.316	0.00335
		[0.59]	[0.24]	[1.26]	[2.54]	[9.12]	[1987.06,1999.12]		
MDO	6	45.33	32.80	38.35	30.65	−20.07	1971.05	0.0836	0.000231
		[0.62]	[0.25]	[2.39]	[1.49]	[6.31]	[1963.04,1980.04]		
MDUWU	6	46.40	34.79	36.36	29.63	−18.52	1991.12	0.335	0.00168
		[0.65]	[0.26]	[1.57]	[2.85]	[8.60]	[1985.06,1999.12]		
MNO	12	16.92	11.87	12.74	8.64	−32.20	1992.09	0.0298	0.000497
		[0.41]	[0.16]	[0.60]	[1.17]	[9.71]	[1990.06,1999.01]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	21.75	19.69	21.35	18.02	−15.59	1980.10	0.269	0.312
		[0.48]	[0.19]	[1.07]	[1.07]	[6.58]	[1971.01,1999.12]		
MU	3	8.67	7.56	8.99	7.00	−22.09	1971.06	0.0444	0.171
		[0.30]	[0.12]	[0.56]	[0.35]	[6.28]	[1965.09,1981.02]		
MDU	3	8.89	7.89	9.41	7.28	−22.62	1971.09	0.0332	0.239
		[0.31]	[0.12]	[0.58]	[0.37]	[6.20]	[1966.07,1981.06]		
MNU	12	19.97	16.60	17.47	14.95	−14.44	1987.07	0.474	0.0532
		[0.44]	[0.18]	[0.80]	[1.11]	[7.45]	[1971.10,1999.12]		
MPCON	5	74.80	73.70	52.86	79.12	49.68	1967.12	0.00258	0.883
		[0.92]	[0.37]	[6.05]	[3.09]	[18.11]	[1963.10,1969.07]		
MPCONQ	9	70.74	71.65	50.88	75.76	48.89	1966.07	0.00983	0.899
		[0.90]	[0.36]	[6.53]	[2.90]	[19.95]	[1962.04,1968.01]		
Consumption									
GMCQ	8	7.26	5.77	6.50	4.21	−35.20	1988.04	0.000197	0.0210
		[0.27]	[0.11]	[0.29]	[0.42]	[7.05]	[1986.08,1992.07]		
GMCDQ	8	34.92	27.27	29.04	21.51	−25.92	1991.11	0.108	0.0194
		[0.61]	[0.25]	[1.39]	[2.51]	[9.33]	[1990.03,1999.12]		
GMCNQ	12	6.99	6.99	8.56	5.53	−35.44	1979.08	1.04E-005	0.996
		[0.30]	[0.12]	[0.43]	[0.41]	[5.77]	[1978.01,1984.01]		
GMCSQ	10	3.96	3.45	2.27	3.94	73.73	1971.11	2.63E-006	0.185
		[0.21]	[0.08]	[0.26]	[0.17]	[21.29]	[1968.09,1972.07]		
GMCANQ	5	103.67	68.21	74.54	51.06	−31.50	1990.01	0.0516	0.000226
		[1.04]	[0.42]	[4.17]	[6.87]	[9.98]	[1987.01,1999.01]		
Money and credit									
FM1	9	4.85	4.26	2.86	4.93	72.37	1972.11	4.77E-006	0.249
		[0.24]	[0.10]	[0.32]	[0.22]	[20.94]	[1969.07,1973.12]		
FM2	12	2.65	2.22	1.33	2.39	80.20	1966.04	0.00458	0.128
		[0.18]	[0.07]	[0.26]	[0.11]	[36.82]	[1962.06,1966.10]		
FM3	8	2.94	2.39	1.64	2.62	59.79	1968.12	0.000839	0.0408
		[0.18]	[0.07]	[0.21]	[0.11]	[21.28]	[1964.12,1970.07]		
FML	12	2.93	3.34	2.85	3.79	33.09	1978.10	0.00261	0.202
		[0.19]	[0.08]	[0.18]	[0.17]	[10.16]	[1972.06,1982.06]		
FM2DQ	10	3.78	2.78	2.24	3.05	35.95	1973.01	0.0351	0.00283
		[0.19]	[0.08]	[0.22]	[0.15]	[14.71]	[1964.01,1977.05]		
FMFBA	11	2.52	2.54	2.80	2.39	−14.82	1975.11	0.417	0.936
		[0.18]	[0.07]	[0.17]	[0.13]	[6.98]	[1960.02,1995.11]		
FMBASE	12	3.93	3.95	3.58	4.30	20.03	1979.09	0.244	0.955
		[0.22]	[0.09]	[0.23]	[0.22]	[9.90]	[1960.02,1989.10]		
FMRRA	11	7.58	10.33	9.26	11.14	20.31	1977.12	0.158	0.00705
		[0.34]	[0.14]	[0.58]	[0.50]	[9.26]	[1962.04,1986.11]		
FMRNBA	1	22.94	16.29	12.19	19.21	57.54	1977.05	0.00347	0.00731
		[0.53]	[0.21]	[1.42]	[1.19]	[20.78]	[1970.02,1980.04]		
FMRNBC	1	19.62	14.25	15.74	9.90	−37.10	1988.04	0.0133	0.00605
		[0.47]	[0.20]	[0.87]	[1.49]	[10.08]	[1987.01,1994.07]		
FCLS	2	3.91	3.78	3.45	4.96	43.62	1995.02	0.0290	0.807
		[0.27]	[0.11]	[0.22]	[0.43]	[15.46]	[1986.10,1997.01]		
FCSGV	3	13.38	9.09	10.32	8.04	−22.07	1987.03	0.254	0.00170
		[0.44]	[0.18]	[0.76]	[0.69]	[8.81]	[1980.10,1999.12]		
FCLRE	3	2.39	2.88	2.47	4.67	88.89	1995.11	5.56E-006	0.275
		[0.25]	[0.10]	[0.18]	[0.38]	[20.53]	[1992.05,1996.04]		
FCLIN	3	4.80	3.77	3.31	5.92	78.61	1996.01	4.62E-005	0.0715
		[0.28]	[0.11]	[0.23]	[0.49]	[19.19]	[1993.06,1996.12]		
FCLNBF	1	19.34	18.54	13.00	24.80	90.68	1985.09	3.63E-006	0.769
		[0.61]	[0.29]	[1.51]	[1.61]	[25.43]	[1983.08,1986.08]		
FCLNQ	7	10.57	8.38	5.68	9.40	65.45	1971.03	5.66E-005	0.0215
		[0.33]	[0.13]	[0.66]	[0.41]	[20.59]	[1967.09,1972.07]		
FCLBMC	8	26104.21	30046.13	9828.52	48934.88	397.89	1979.09	1.38E-037	0.396
		[22.93]	[9.25]	[2140.64]	[2069.09]	[110.46]	[1978.09,1979.10]		
CCI30M	12	67.87	84.23	48.08	107.67	123.94	1973.08	7.40E-011	0.136
		[1.11]	[0.48]	[6.55]	[5.27]	[32.41]	[1971.05,1973.11]		
CCINT	8	2708509.87	2319996.44	921559.63	2894696.50	214.11	1981.07	1.67E-007	0.395
		[279.26]	[106.57]	[282030.97]	[180798.99]	[98.11]	[1980.02,1981.09]		
CCINV	7	1059468.32	1151469.04	634566.60	1529372.51	141.01	1985.02	5.20E-009	0.659
		[188.48]	[71.93]	[105332.74]	[90063.65]	[42.45]	[1983.07,1985.05]		
Stock prices									
FSNCOM	2	60.56	33.39	35.51	29.13	−17.95	1987.11	0.425	9.61E-011
		[0.69]	[0.28]	[1.91]	[2.71]	[8.83]	[1977.01,1999.12]		
FSNIN	2	67.90	34.68	38.50	28.42	−26.20	1988.08	0.0977	8.89E-012
		[0.77]	[0.32]	[2.33]	[2.98]	[8.93]	[1983.10,1999.03]		
FSNTR	2	87.62	49.99	53.59	42.32	−21.04	1990.04	0.251	1.73E-009
		[0.88]	[0.36]	[2.86]	[4.17]	[8.86]	[1981.04,1999.12]		
FSNUT	5	52.07	31.08	28.71	33.57	16.94	1985.07	0.607	5.83E-008
		[0.69]	[0.28]	[2.05]	[2.10]	[11.09]	[1969.05,1999.12]		
FSNFI	2	81.92	45.83	52.04	43.88	−15.69	1976.01	0.689	1.32E-009
		[0.85]	[0.35]	[4.60]	[2.58]	[8.96]	[1967.02,1999.12]		

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Series	p	σ_R	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	58.62	33.23	34.49	30.42	−11.81	1988.08	0.906	6.69E-010
		[0.68]	[0.28]	[1.85]	[2.76]	[9.28]	[1960.02,1999.12]		
FSPIN	2	59.72	33.73	35.46	29.89	−15.71	1988.08	0.623	7.30E-010
		[0.69]	[0.28]	[1.90]	[2.82]	[9.15]	[1972.06,1999.12]		
FSPCAP	1	70.01	39.98	41.77	36.01	−13.79	1988.08	0.768	1.46E-009
		[0.75]	[0.30]	[2.23]	[3.32]	[9.19]	[1965.04,1999.12]		
FSPTR	2	84.93	49.47	53.22	42.87	−19.44	1990.03	0.356	1.56E-007
		[0.96]	[0.38]	[3.06]	[4.07]	[8.94]	[1980.09,1999.12]		
FSPUT	5	53.40	32.99	26.99	34.18	26.60	1966.07	0.460	1.01E-007
		[0.66]	[0.27]	[3.52]	[1.56]	[17.47]	[1960.02,1975.08]		
FSPFI	2	88.03	50.71	48.21	62.41	29.46	1995.07	0.259	3.50E-008
		[0.96]	[0.38]	[2.70]	[5.83]	[14.09]	[1986.11,1999.12]		
Dividends and volume									
FSDXP	1	62.49	35.52	34.10	42.19	23.70	1993.12	0.506	3.79E-009
		[0.72]	[0.29]	[1.88]	[4.08]	[13.77]	[1973.01,1999.12]		
FSPXE	4	62.24	41.08	36.96	42.55	15.11	1969.11	0.847	2.05E-005
		[0.75]	[0.30]	[3.62]	[2.16]	[12.70]	[1960.02,1987.08]		
FSNVV3	12	38.27	31.01	56.06	25.01	−55.38	1979.01	1.64E-010	0.191
		[0.96]	[0.35]	[4.00]	[1.96]	[4.72]	[1978.09,1980.09]		
Interest rates									
FYFF	12	970.57	318.04	374.31	193.18	−48.39	1988.08	0.0134	2.12E-022
		[2.76]	[1.11]	[29.84]	[44.44]	[12.57]	[1987.12,1997.01]		
FYCP	12	862.99	348.41	181.13	408.12	125.32	1969.04	0.000274	8.01E-018
		[2.60]	[1.08]	[44.03]	[26.30]	[56.66]	[1965.03,1969.09]		
FYGM3	12	779.53	296.64	135.92	327.85	141.20	1966.06	0.00325	1.30E-021
		[2.39]	[0.97]	[46.20]	[20.36]	[83.35]	[1962.09,1966.12]		
FYGM6	12	751.04	299.72	142.67	329.67	131.07	1966.05	0.00194	1.36E-021
		[2.31]	[0.93]	[43.49]	[18.99]	[71.67]	[1962.12,1967.01]		
FYGT1	12	736.13	338.46	148.17	377.41	154.72	1966.09	1.26E-005	1.09E-017
		[2.29]	[0.92]	[41.04]	[18.57]	[71.65]	[1964.07,1967.02]		
FYGT5	6	480.35	294.51	156.13	340.63	118.18	1969.06	1.18E-006	2.94E-006
		[2.12]	[0.86]	[28.82]	[16.64]	[41.67]	[1966.11,1969.11]		
FYGT10	12	399.07	245.52	100.82	275.14	172.91	1966.09	6.65E-007	1.61E-006
		[1.90]	[0.77]	[28.12]	[12.72]	[77.17]	[1964.11,1967.02]		
FYAAAC	12	277.95	178.08	114.13	235.55	106.39	1979.05	1.03E-009	7.83E-005
		[1.69]	[0.68]	[13.14]	[12.46]	[26.15]	[1976.07,1980.01]		
FYBAAC	4	273.84	171.49	96.24	234.04	143.19	1978.09	3.45E-013	4.07E-005
		[1.68]	[0.68]	[13.04]	[11.89]	[35.19]	[1976.06,1979.01]		
FWAFIT	3	440.65	267.72	400.00	199.06	−50.23	1981.05	2.52E-005	0.000270
		[2.55]	[1.20]	[32.94]	[23.73]	[7.21]	[1980.09,1984.03]		
FYFHA	4	400.68	247.14	117.41	367.17	212.73	1979.08	4.65E-016	0.000226
		[2.17]	[0.88]	[20.90]	[20.10]	[58.24]	[1977.07,1979.10]		
Exchange rates									
EXRUS	2	23.98	18.37	12.09	19.86	64.25	1979.06	0.0253	0.0608
		[0.71]	[0.24]	[2.20]	[1.07]	[31.16]	[1975.10,1980.08]		
EXRGER	1	31.60	29.64	21.70	31.21	43.82	1978.09	0.160	0.653
		[0.85]	[0.30]	[3.54]	[1.57]	[24.58]	[1975.02,1980.09]		
EXRSW	1	41.17	32.67	23.69	35.16	48.39	1980.01	0.0508	0.0895
		[0.91]	[0.32]	[3.46]	[1.83]	[23.02]	[1975.11,1983.04]		
EXRJAN	3	36.78	30.23	27.97	38.38	37.21	1995.02	0.0646	0.163
		[0.88]	[0.31]	[1.71]	[3.25]	[14.32]	[1989.10,1998.10]		
EXRUK	3	28.95	26.02	29.94	16.86	−43.68	1993.04	0.000244	0.490
		[0.84]	[0.29]	[1.61]	[2.46]	[8.75]	[1992.08,1996.01]		
EXRCAN	12	10.29	11.67	10.04	12.98	29.19	1986.12	0.0581	0.379
		[0.51]	[0.18]	[0.76]	[0.68]	[11.88]	[1980.12,1992.07]		
Producer prices									
PWFSA	9	6.25	3.98	4.28	3.14	−26.59	1990.04	0.146	2.64E-005
		[0.25]	[0.10]	[0.23]	[0.39]	[10.00]	[1986.05,1999.12]		
PWFCSA	9	7.12	5.05	5.42	4.01	−25.94	1990.03	0.115	0.00126
		[0.27]	[0.11]	[0.28]	[0.46]	[9.37]	[1985.10,1999.12]		
PWIMSA	4	7.53	3.75	4.05	2.91	−28.17	1990.03	0.247	3.77E-010
		[0.26]	[0.11]	[0.26]	[0.44]	[11.76]	[1986.05,1999.12]		
PWCMSA	11	26.34	19.83	17.31	31.71	83.13	1993.12	5.55E-007	0.0144
		[0.55]	[0.22]	[1.06]	[2.30]	[17.39]	[1991.02,1994.12]		
PWFXSA	9	5.07	4.32	4.68	3.60	−23.08	1990.02	0.245	0.205
		[0.27]	[0.11]	[0.28]	[0.39]	[9.56]	[1984.07,1999.12]		
PW160A	12	15.52	16.99	22.01	15.91	−27.70	1979.02	0.0475	0.547
		[0.64]	[0.22]	[1.87]	[0.87]	[7.31]	[1976.04,1983.12]		
PW150A	9	16.24	16.04	24.90	13.12	−47.30	1981.03	8.47E-008	0.942
		[0.68]	[0.23]	[1.70]	[0.98]	[5.32]	[1980.08,1983.06]		
PW561	5	76.86	45.76	19.62	87.34	345.15	1986.01	5.75E-031	0.000219
		[0.98]	[0.39]	[3.53]	[4.45]	[83.15]	[1984.08,1986.02]		
PWCM	9	5.13	5.17	3.70	5.58	50.99	1968.05	0.00723	0.944
		[0.26]	[0.10]	[0.47]	[0.25]	[20.19]	[1963.04,1970.03]		

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Series	p	σ_{R}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	6.96	4.13	4.87	3.93	−19.20	1976.02	0.506	3.50E-007
		[0.26]	[0.11]	[0.46]	[0.24]	[9.10]	[1968.02,1997.06]		
PSM99Q	12	15.41	13.56	9.88	14.28	44.52	1966.07	0.0723	0.240
		[0.42]	[0.17]	[1.44]	[0.64]	[22.03]	[1960.03,1969.07]		
PSCCOM	12	18.32	18.94	15.85	20.41	28.77	1972.11	0.100	0.775
		[0.49]	[0.20]	[1.41]	[0.97]	[13.01]	[1960.02,1976.05]		
PSCFOO	12	30.94	28.56	22.16	31.50	42.14	1972.08	0.0139	0.493
		[0.63]	[0.25]	[2.29]	[1.56]	[16.28]	[1964.09,1974.12]		
PSCMAT	6	21.18	19.46	20.75	16.98	−18.18	1987.07	0.251	0.424
		[0.49]	[0.20]	[0.99]	[1.37]	[7.68]	[1980.12,1999.12]		
PZFR	6	18.50	19.35	22.02	18.81	−14.56	1979.08	0.918	0.784
		[0.73]	[0.25]	[2.42]	[1.09]	[10.62]	[1976.02,1999.12]		
PCGOLD	7	73.25	44.49	65.94	37.38	−43.31	1983.03	0.000222	0.00112
		[1.24]	[0.42]	[5.53]	[3.18]	[6.78]	[1982.03,1986.08]		
Consumer prices									
PUNEW	9	3.03	1.88	2.05	1.40	−31.63	1990.06	0.0319	3.47E-006
		[0.17]	[0.07]	[0.11]	[0.18]	[9.49]	[1988.08,1998.06]		
PU81	12	4.35	3.84	5.50	3.04	−44.70	1979.02	3.52E-008	0.318
		[0.25]	[0.10]	[0.33]	[0.23]	[5.30]	[1978.05,1981.11]		
PUH	9	4.50	1.97	2.79	1.43	−48.75	1982.12	3.93E-006	5.63E-014
		[0.20]	[0.08]	[0.20]	[0.16]	[6.84]	[1982.07,1987.02]		
PU83	6	3.16	3.81	2.85	5.32	86.48	1986.01	3.01E-012	0.149
		[0.23]	[0.09]	[0.20]	[0.26]	[16.07]	[1983.05,1986.08]		
PU84	8	6.98	5.33	4.85	5.74	18.34	1978.12	0.524	0.0136
		[0.28]	[0.11]	[0.37]	[0.34]	[11.41]	[1960.02,1991.09]		
PU85	6	2.26	2.08	2.87	1.08	−62.54	1984.03	1.48E-016	0.548
		[0.18]	[0.07]	[0.14]	[0.15]	[5.64]	[1984.01,1985.12]		
PUC	9	3.94	2.99	2.59	3.19	23.32	1972.12	0.374	0.0122
		[0.21]	[0.08]	[0.25]	[0.17]	[13.54]	[1960.02,1978.10]		
PUCD	12	3.50	2.50	2.85	1.78	−37.62	1988.04	0.000221	0.00113
		[0.19]	[0.07]	[0.14]	[0.20]	[7.54]	[1987.01,1992.10]		
PUS	9	3.39	2.00	2.56	1.31	−48.65	1983.12	2.44E-008	4.89E-007
		[0.18]	[0.07]	[0.13]	[0.15]	[6.42]	[1983.06,1987.02]		
PUXF	9	3.24	2.05	2.26	1.44	−36.48	1990.04	0.00121	1.05E-006
		[0.17]	[0.07]	[0.10]	[0.17]	[8.25]	[1988.10,1994.11]		
PUXHS	12	3.17	2.45	2.66	1.81	−31.94	1990.07	0.00431	0.00735
		[0.17]	[0.07]	[0.12]	[0.20]	[7.97]	[1988.02,1995.08]		
PUXM	9	3.25	2.21	2.46	1.47	−40.03	1990.06	0.000160	5.67E-005
		[0.17]	[0.07]	[0.11]	[0.19]	[8.04]	[1989.06,1994.02]		
GMDC	9	2.18	1.47	1.23	1.57	28.01	1971.08	0.190	6.77E-005
		[0.14]	[0.06]	[0.12]	[0.08]	[14.27]	[1960.02,1977.12]		
GMDCD	12	3.29	2.51	2.76	2.23	−19.01	1981.05	0.246	0.0130
		[0.19]	[0.08]	[0.16]	[0.17]	[7.75]	[1971.12,1999.12]		
GMDCN	9	3.76	2.85	2.34	3.09	32.36	1972.12	0.141	0.0157
		[0.21]	[0.08]	[0.25]	[0.17]	[15.83]	[1960.02,1977.04]		
GMDCS	9	1.76	1.32	0.93	1.51	61.13	1972.12	9.89E-005	0.00521
		[0.13]	[0.05]	[0.10]	[0.07]	[18.92]	[1968.07,1974.01]		
Miscellaneous									
PMI	12	2970.86	2604.43	2908.75	2192.31	−24.63	1984.09	0.0205	0.214
		[5.78]	[2.33]	[143.83]	[167.38]	[6.86]	[1980.04,1993.10]		
PMP	12	3728.61	3931.20	4457.20	3204.52	−28.10	1984.11	0.00349	0.648
		[7.09]	[2.86]	[214.70]	[252.35]	[6.64]	[1982.05,1992.02]		
PMNO	4	4521.87	4148.55	4530.87	3625.61	−19.98	1984.10	0.174	0.454
		[7.52]	[3.03]	[243.92]	[285.27]	[7.63]	[1976.07,1999.12]		
PMDEL	12	5171.46	3181.22	4182.71	2179.73	−47.89	1980.10	8.65E-008	1.70E-005
		[7.24]	[2.92]	[236.00]	[236.00]	[6.36]	[1980.03,1984.07]		
PMNV	12	3097.00	3447.11	3850.18	2552.80	−33.70	1988.08	0.000204	0.337
		[6.43]	[2.59]	[160.91]	[239.68]	[6.81]	[1987.05,1992.12]		
PMEMP	12	2941.32	2924.19	3271.44	2211.67	−32.39	1988.01	0.000424	0.956
		[5.96]	[2.40]	[140.33]	[201.02]	[6.79]	[1986.03,1992.09]		
PMCP	12	4263.93	4227.92	4960.02	3753.52	−24.32	1976.08	0.0333	0.944
		[7.65]	[3.08]	[305.00]	[245.52]	[6.79]	[1972.02,1988.09]		
HHSNTN	0	4899.70	3752.69	2039.50	5081.90	149.17	1978.02	1.78E-016	0.0212
		[7.51]	[3.03]	[261.72]	[230.53]	[33.91]	[1976.05,1978.05]		
F6EDM	12	58.20	63.99	95.01	56.55	−40.48	1971.10	7.93E-006	0.480
		[1.00]	[0.40]	[6.67]	[3.26]	[5.41]	[1970.12,1975.11]		
FTMC6	12	125.16	99.22	105.94	78.47	−25.93	1990.06	0.0760	0.0221
		[1.18]	[0.48]	[4.90]	[8.61]	[8.82]	[1986.05,1997.06]		
FTMM6	5	68.38	59.07	75.12	31.77	−57.71	1988.02	1.42E-010	0.278
		[1.03]	[0.41]	[3.77]	[4.92]	[6.88]	[1987.12,1990.03]		

Results for SupW tests for structural change in expansion volatility for individual series, when a nonlinear AR model with structural change during expansions is used for the conditional mean. The columns headed σ_{R} and σ_0 contain estimates of the conditional standard deviation during recessions and expansions under the null hypothesis, respectively. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation during expansions before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated volatility break date is given in the column headed τ_v, with the 90% confidence interval given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional volatility. Figures in brackets below parameter estimates are standard errors.

Table A.12: Tests for structural change in recession volatility

Series	p	σ_E	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
Production									
IP	3	7.14	9.58	11.08	4.79	−56.74	1982.03	0.0155	0.00543
		[0.13]	[0.32]	[0.92]	[1.64]	[15.26]	[1979.05,1989.03]		
IPP	3	7.36	9.99	11.40	5.51	−51.68	1982.03	0.0114	0.000957
		[0.12]	[0.30]	[0.84]	[1.50]	[13.59]	[1979.02,1988.06]		
IPF	3	7.90	10.54	11.35	7.76	−31.65	1982.04	0.469	0.00249
		[0.13]	[0.31]	[0.92]	[1.71]	[16.02]	[1972.10,1999.12]		
IPC	0	9.75	12.25	14.43	8.81	−38.97	1980.05	0.123	0.0308
		[0.15]	[0.36]	[1.36]	[1.71]	[13.19]	[1974.07,1996.08]		
IPCD	1	24.17	34.33	29.73	38.54	29.63	1974.10	0.773	0.00221
		[0.25]	[0.61]	[4.44]	[4.25]	[24.08]	[1960.02,1999.12]		
IPCN	2	8.14	8.29	9.12	5.43	−40.48	1982.04	0.382	0.857
		[0.12]	[0.31]	[0.88]	[1.64]	[18.84]	[1969.10,1996.10]		
IPE	5	11.30	15.15	9.57	17.20	79.83	1970.08	0.0752	0.00365
		[0.16]	[0.39]	[2.35]	[1.43]	[46.65]	[1961.09,1976.06]		
IPI	3	9.17	12.38	10.15	13.47	32.61	1973.12	0.639	0.00204
		[0.14]	[0.34]	[1.68]	[1.17]	[24.80]	[1960.02,1999.08]		
IPM	12	9.03	11.85	13.63	6.17	−54.74	1982.03	0.0365	0.0129
		[0.14]	[0.36]	[1.20]	[2.14]	[16.16]	[1979.01,1990.10]		
IPMD	12	12.66	19.05	21.53	11.14	−48.23	1982.03	0.0446	7.84E-005
		[0.17]	[0.43]	[1.70]	[3.04]	[14.72]	[1979.06,1991.08]		
IPMND	10	10.46	15.50	11.09	19.30	74.09	1974.09	0.00568	4.14E-005
		[0.15]	[0.37]	[1.65]	[1.53]	[29.41]	[1967.09,1978.09]		
IPMFG	3	7.79	10.67	12.17	5.88	−51.71	1982.03	0.0447	0.00343
		[0.13]	[0.33]	[1.03]	[1.85]	[15.71]	[1979.04,1991.07]		
IPD	3	10.22	14.96	17.08	8.18	−52.11	1982.03	0.0434	0.000622
		[0.16]	[0.40]	[1.46]	[2.60]	[15.76]	[1978.05,1990.08]		
IPN	3	7.43	9.86	11.05	3.82	−65.47	1982.08	0.0119	0.00448
		[0.13]	[0.31]	[0.86]	[1.93]	[17.70]	[1980.06,1987.07]		
IPMIN	1	12.83	13.99	6.32	16.40	159.65	1970.06	0.0505	0.467
		[0.17]	[0.43]	[3.00]	[1.68]	[126.27]	[1962.09,1974.08]		
IPUT	10	17.29	14.83	5.19	16.94	226.58	1970.02	0.176	0.226
		[0.19]	[0.48]	[4.43]	[2.07]	[281.53]	[1960.04,1973.08]		
IPX	3	557.91	748.45	884.39	400.11	−54.76	1982.03	0.0244	0.0110
		[1.27]	[3.03]	[80.46]	[128.80]	[15.13]	[1979.09,1990.02]		
IPXMCA	3	641.85	827.05	939.06	470.05	−49.94	1982.03	0.0867	0.0205
		[1.21]	[3.01]	[84.30]	[150.50]	[16.64]	[1978.03,1992.11]		
IPXDCA	3	764.25	1139.09	1330.30	649.14	−51.20	1982.03	0.0396	0.000746
		[1.54]	[3.69]	[119.51]	[191.30]	[15.03]	[1978.12,1990.05]		
IPXNCA	3	626.45	820.75	932.56	353.17	−62.13	1982.08	0.0166	0.0104
		[1.27]	[3.04]	[76.76]	[156.98]	[17.12]	[1980.05,1987.09]		
IPXMIN	1	1134.82	1475.71	1776.82	1240.47	−30.19	1975.01	0.486	0.0315
		[1.84]	[4.40]	[219.83]	[194.31]	[13.94]	[1968.02,1999.12]		
IPXUT	6	1636.10	1460.26	1400.43	2537.23	81.17	1990.12	0.844	0.397
		[2.11]	[5.03]	[196.18]	[832.31]	[64.62]	[1984.09,1998.04]		
GMPYQ	9	4.03	4.53	6.79	3.69	−45.60	1970.08	0.0634	0.340
		[0.10]	[0.24]	[0.93]	[0.56]	[11.17]	[1963.08,1979.04]		
GMYXPQ	9	3.78	4.26	5.33	3.62	−32.17	1974.03	0.314	0.261
		[0.09]	[0.22]	[0.65]	[0.50]	[12.43]	[1960.02,1993.11]		
(Un)employment									
LHEL	12	1986.90	1937.29	1729.24	2227.07	28.79	1980.03	0.909	0.819
		[2.00]	[4.96]	[263.04]	[310.44]	[26.57]	[1960.02,1999.12]		
LHELX	4	43.35	46.89	58.56	27.30	−53.38	1980.06	0.0314	0.505
		[0.31]	[0.78]	[6.16]	[7.98]	[14.48]	[1977.06,1992.05]		
LHEM	8	3.09	2.86	3.32	0.94	−71.80	1982.06	0.0557	0.513
		[0.08]	[0.20]	[0.36]	[0.74]	[22.49]	[1978.05,1989.09]		
LHNAG	8	2.89	3.08	3.43	0.83	−75.84	1982.10	0.0446	0.551
		[0.08]	[0.19]	[0.32]	[0.81]	[23.82]	[1979.11,1987.11]		
LHUR	12	164.06	207.89	230.93	90.61	−60.76	1982.08	0.0474	0.0221
		[0.59]	[1.47]	[19.25]	[43.43]	[19.09]	[1978.07,1988.03]		
LHU680	7	523.41	466.16	683.55	428.02	−37.38	1965.12	0.552	0.313
		[1.02]	[2.54]	[135.86]	[56.90]	[14.97]	[1960.02,1990.09]		
LHU5	12	45.24	48.65	75.09	41.67	−44.51	1970.04	0.0833	0.527
		[0.32]	[0.78]	[10.87]	[5.58]	[10.95]	[1965.02,1980.12]		
LHU14	5	55.09	54.94	67.12	33.12	−50.65	1980.07	0.0446	0.981
		[0.33]	[0.82]	[6.84]	[9.15]	[14.53]	[1975.11,1991.10]		
LHU15	4	55.03	60.45	84.16	48.85	−41.96	1973.12	0.0413	0.367
		[0.33]	[0.83]	[9.63]	[6.74]	[10.40]	[1967.11,1983.11]		
LHU26	4	86.74	77.99	85.71	45.89	−46.45	1982.06	0.440	0.330
		[0.41]	[1.01]	[9.25]	[18.85]	[22.74]	[1971.07,1997.12]		
LHU27	7	74.94	73.50	93.41	44.01	−52.88	1980.04	0.0291	0.865
		[0.39]	[0.98]	[10.03]	[12.20]	[14.01]	[1976.08,1991.10]		
LHCH	12	210.97	144.73	168.24	89.48	−46.82	1981.11	0.625	0.00604
		[0.72]	[1.64]	[26.33]	[40.36]	[25.39]	[1960.02,1995.02]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
LPNAG	4	1.60	2.22	2.79	1.27	−54.56	1980.06	0.00186	0.00231
		[0.06]	[0.15]	[0.24]	[0.30]	[11.58]	[1978.09,1987.12]		
LP	3	1.88	2.57	3.21	1.57	−50.94	1980.05	0.00680	0.00435
		[0.07]	[0.17]	[0.28]	[0.36]	[11.91]	[1978.03,1989.07]		
LPGD	3	3.29	4.86	5.35	3.44	−35.72	1982.02	0.441	0.000913
		[0.09]	[0.23]	[0.51]	[0.87]	[17.38]	[1978.02,1999.12]		
LPMI	12	7.57	10.77	6.94	14.49	108.90	1974.11	0.00731	0.00568
		[0.15]	[0.36]	[1.51]	[1.49]	[50.20]	[1967.02,1978.07]		
LPCC	5	9.60	11.38	13.05	6.46	−50.44	1982.02	0.300	0.223
		[0.16]	[0.41]	[1.56]	[2.67]	[21.29]	[1978.11,1999.12]		
LPEM	3	2.87	5.07	2.48	5.63	126.66	1970.02	0.0750	3.17E-006
		[0.09]	[0.23]	[1.03]	[0.48]	[95.61]	[1965.02,1978.03]		
LPED	5	4.16	7.05	3.02	7.93	162.38	1970.02	0.0525	3.76E-005
		[0.11]	[0.28]	[1.53]	[0.71]	[134.49]	[1966.01,1978.06]		
LPEN	2	2.30	3.68	4.03	1.88	−53.22	1982.08	0.104	2.45E-005
		[0.08]	[0.19]	[0.33]	[0.74]	[18.79]	[1980.12,1992.05]		
LPSP	6	1.32	1.79	2.08	1.15	−44.61	1981.10	0.0478	0.00286
		[0.05]	[0.13]	[0.18]	[0.26]	[13.38]	[1977.09,1992.07]		
LPTU	12	4.40	3.36	4.63	2.69	−41.80	1974.01	0.749	0.125
		[0.11]	[0.28]	[1.07]	[0.77]	[21.44]	[1960.02,1999.12]		
LPT	12	2.10	2.76	3.38	1.79	−46.97	1980.05	0.0171	0.00965
		[0.07]	[0.17]	[0.30]	[0.38]	[12.06]	[1977.06,1990.10]		
LPFR	10	1.31	1.28	1.50	1.01	−32.61	1975.02	0.440	0.792
		[0.05]	[0.13]	[0.18]	[0.19]	[14.86]	[1960.02,1999.12]		
LPS	10	1.80	1.89	2.51	1.65	−34.37	1970.09	0.354	0.649
		[0.06]	[0.15]	[0.36]	[0.23]	[13.00]	[1960.02,1985.10]		
LPGOV	12	2.10	4.27	3.36	5.21	55.16	1974.12	0.0274	1.09E-011
		[0.08]	[0.19]	[0.41]	[0.42]	[22.80]	[1966.08,1982.01]		
LW	4	110.42	143.24	160.04	91.66	−42.73	1982.05	0.331	0.0325
		[0.55]	[1.37]	[16.34]	[28.64]	[18.83]	[1975.01,1998.05]		
LPHRM	12	212.45	317.13	362.35	184.16	−49.18	1982.02	0.0710	0.000507
		[0.74]	[1.85]	[32.06]	[54.98]	[15.83]	[1979.07,1993.10]		
LPMOSA	12	126.04	152.71	163.78	71.10	−56.59	1982.11	0.380	0.103
		[0.55]	[1.36]	[16.09]	[43.69]	[27.01]	[1977.07,1993.05]		
Wages and salaries									
LEH	12	2.16	3.05	3.67	1.60	−56.49	1982.02	0.0134	0.00369
		[0.08]	[0.19]	[0.33]	[0.51]	[14.53]	[1980.01,1990.02]		
LEHCC	11	5.26	6.67	4.59	8.26	80.06	1974.07	0.0555	0.0387
		[0.11]	[0.28]	[0.96]	[0.83]	[41.68]	[1967.02,1986.03]		
LEHM	11	3.04	4.09	4.63	2.52	−45.63	1982.02	0.190	0.0126
		[0.09]	[0.22]	[0.45]	[0.77]	[17.45]	[1977.06,1997.05]		
LEHTU	11	4.09	4.29	4.68	2.44	−47.84	1982.09	0.628	0.726
		[0.10]	[0.26]	[0.58]	[1.25]	[27.41]	[1976.01,1999.12]		
LEHTT	9	2.53	3.21	4.00	1.86	−53.41	1981.10	0.0114	0.0368
		[0.08]	[0.20]	[0.38]	[0.49]	[13.12]	[1979.04,1990.04]		
LEHFR	12	4.41	4.62	3.45	5.08	47.48	1974.04	0.725	0.693
		[0.10]	[0.26]	[0.93]	[0.58]	[43.01]	[1965.02,1999.12]		
LEHS	12	2.91	3.82	4.31	2.44	−43.33	1982.04	0.194	0.0156
		[0.09]	[0.22]	[0.41]	[0.68]	[16.64]	[1977.04,1996.03]		
Construction									
HSFR	12	78.95	93.95	68.30	107.35	57.19	1974.01	0.279	0.105
		[0.41]	[1.02]	[14.57]	[10.54]	[36.92]	[1960.02,1985.06]		
HSNE	4	173.12	255.62	333.86	236.79	−29.08	1970.03	0.389	8.70E-005
		[0.62]	[1.54]	[44.08]	[21.63]	[11.39]	[1960.03,1987.10]		
HSMW	3	157.28	188.95	174.75	491.99	181.54	1990.12	0.00509	0.105
		[0.60]	[1.49]	[18.27]	[84.38]	[56.55]	[1990.04,1992.02]		
HSSOU	12	93.10	124.44	104.47	150.62	44.18	1980.02	0.242	0.00449
		[0.45]	[1.12]	[13.51]	[15.47]	[23.81]	[1965.12,1995.12]		
HSWST	2	125.23	166.03	175.39	105.72	−39.73	1982.10	0.439	0.00259
		[0.50]	[1.24]	[13.45]	[34.14]	[20.01]	[1974.08,1994.03]		
HSBR	2	63.22	97.28	68.53	125.19	82.66	1974.11	0.00319	2.88E-005
		[0.39]	[0.96]	[10.60]	[10.45]	[32.11]	[1968.12,1979.06]		
HSBNE	4	118.58	145.39	157.28	71.03	−54.84	1982.11	0.369	0.0914
		[0.53]	[1.40]	[15.94]	[39.85]	[25.75]	[1977.02,1994.05]		
HSBMW	12	102.08	139.81	152.68	84.85	−44.42	1982.08	0.387	0.00886
		[0.50]	[1.33]	[14.92]	[30.85]	[20.92]	[1972.12,1996.04]		
HSBSOU	12	74.10	91.84	102.04	67.25	−34.10	1982.02	0.510	0.0608
		[0.41]	[1.08]	[10.50]	[16.31]	[17.36]	[1967.02,1999.12]		
HSBWST	1	93.94	140.44	23.31	149.12	539.85	1970.03	0.0897	0.000248
		[0.47]	[1.25]	[44.88]	[12.21]	[1233.20]	[1966.11,1971.07]		
HNS	2	77.49	123.63	83.98	156.90	86.84	1975.02	0.000562	8.10E-007
		[0.42]	[1.07]	[12.64]	[11.57]	[31.32]	[1971.02,1978.09]		
HNSNE	12	171.88	211.08	148.21	243.59	64.36	1980.02	0.302	0.0899
		[0.73]	[1.80]	[36.41]	[26.19]	[44.08]	[1974.02,1986.12]		
HNSMW	11	120.80	167.93	161.20	309.34	91.90	1991.01	0.400	0.00588
		[0.63]	[1.55]	[16.13]	[73.90]	[49.70]	[1988.08,1993.04]		

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Series	p	σ_E	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
HNSSOU	12	93.37	143.87	157.40	111.60	−29.10	1982.06	0.551	0.000109
		[0.55]	[1.35]	[14.34]	[22.14]	[15.48]	[1974.02,1998.04]		
HNSWST	12	116.58	166.50	118.41	188.94	59.56	1977.11	0.375	0.00514
		[0.64]	[1.58]	[29.12]	[19.89]	[42.69]	[1974.02,1986.05]		
HNR	4	505.04	1042.52	676.40	1349.59	99.52	1975.02	1.47E-006	1.98E-015
		[1.13]	[2.89]	[90.22]	[82.62]	[29.28]	[1972.05,1976.09]		
HMOB	3	46.76	84.23	98.55	56.83	−42.33	1981.08	0.00913	1.29E-009
		[0.34]	[0.84]	[6.98]	[9.65]	[10.61]	[1979.03,1990.03]		
CONTC	1	16.78	23.69	28.53	17.93	−37.14	1980.05	0.104	0.00140
		[0.20]	[0.52]	[2.71]	[2.95]	[11.95]	[1974.12,1994.12]		
CONPC	6	16.89	20.18	24.62	14.88	−39.56	1980.05	0.186	0.137
		[0.21]	[0.52]	[2.76]	[3.02]	[14.02]	[1973.12,1998.09]		
CONQC	2	34.00	43.80	42.23	72.01	70.52	1990.12	0.603	0.0231
		[0.29]	[0.73]	[4.10]	[17.41]	[44.43]	[1987.08,1996.07]		
CONDO9	9	85.61	108.29	74.82	114.17	52.58	1965.12	0.748	0.0281
		[0.44]	[1.08]	[24.73]	[10.36]	[52.30]	[1960.02,1973.05]		
Trade									
MSMTQ	12	10.26	9.78	8.63	10.90	26.28	1974.11	0.958	0.658
		[0.14]	[0.35]	[1.43]	[1.41]	[26.63]	[1960.02,1999.12]		
MSMQ	12	13.98	14.39	11.64	16.91	45.29	1974.10	0.425	0.778
		[0.17]	[0.41]	[1.98]	[1.90]	[29.66]	[1960.02,1997.05]		
MSDQ	12	20.34	20.71	20.49	35.23	71.94	1991.02	1.00	0.865
		[0.20]	[0.50]	[2.03]	[16.49]	[82.26]	[1987.05,1997.09]		
MSNQ	3	11.70	13.65	10.37	14.95	44.21	1970.09	0.608	0.147
		[0.16]	[0.39]	[2.34]	[1.47]	[35.50]	[1960.02,1993.11]		
WTQ	3	15.12	16.31	11.97	18.30	52.85	1970.11	0.468	0.486
		[0.18]	[0.44]	[2.83]	[1.91]	[39.45]	[1960.02,1989.03]		
WTDQ	5	16.48	19.52	17.63	21.46	21.73	1974.12	0.956	0.0969
		[0.18]	[0.46]	[2.38]	[2.41]	[21.38]	[1960.02,1999.12]		
WTNQ	4	20.60	23.27	13.27	26.67	100.95	1970.07	0.0820	0.248
		[0.21]	[0.51]	[4.22]	[2.46]	[66.55]	[1962.02,1977.02]		
RTQ	11	11.84	15.32	8.52	16.96	99.11	1970.03	0.136	0.0150
		[0.16]	[0.40]	[3.00]	[1.47]	[72.20]	[1962.11,1978.05]		
RTDQ	2	27.10	39.65	28.16	44.54	58.16	1970.10	0.207	0.000325
		[0.25]	[0.63]	[5.90]	[3.85]	[35.82]	[1960.02,1984.09]		
RTNQ	12	8.22	9.54	10.46	8.17	−21.85	1980.04	0.859	0.156
		[0.13]	[0.32]	[1.11]	[1.35]	[15.37]	[1960.06,1999.12]		
Inventories									
IVMTQ	3	3.60	5.50	5.10	6.39	25.34	1981.10	0.579	6.00E-007
		[0.08]	[0.21]	[0.43]	[0.63]	[16.21]	[1964.05,1999.12]		
IVMFGQ	12	3.77	4.50	4.68	3.16	−32.41	1982.11	0.845	0.0706
		[0.09]	[0.21]	[0.39]	[1.07]	[23.61]	[1964.12,1999.12]		
IVMFDQ	12	4.85	5.34	5.62	4.60	−18.03	1982.01	1.00	0.372
		[0.10]	[0.25]	[0.59]	[0.98]	[19.49]	[1960.02,1999.12]		
IVMFNQ	2	5.08	5.98	5.62	7.10	26.18	1982.03	0.916	0.111
		[0.10]	[0.25]	[0.59]	[1.06]	[23.10]	[1960.02,1999.12]		
IVWRQ	12	7.12	12.23	13.01	6.45	−50.40	1982.11	0.0555	1.59E-010
		[0.12]	[0.30]	[0.78]	[2.13]	[16.61]	[1980.02,1987.10]		
IVRRQ	12	7.86	9.58	10.18	5.74	−43.65	1982.10	0.458	0.0496
		[0.13]	[0.32]	[0.87]	[2.21]	[22.25]	[1974.07,1994.09]		
IVSRQ	12	15.12	16.82	12.46	20.58	65.11	1974.09	0.112	0.311
		[0.18]	[0.44]	[2.28]	[2.11]	[34.60]	[1960.03,1981.01]		
IVSRMQ	12	22.97	25.69	19.17	31.31	63.36	1974.09	0.0933	0.265
		[0.21]	[0.53]	[3.31]	[3.07]	[32.45]	[1963.01,1983.10]		
IVSRWQ	2	19.70	21.18	16.79	31.49	87.57	1981.11	0.0105	0.489
		[0.20]	[0.49]	[2.32]	[3.56]	[33.51]	[1976.06,1987.05]		
IVSRRQ	5	18.81	24.40	12.79	28.66	124.15	1970.08	0.0220	0.0189
		[0.21]	[0.52]	[4.21]	[2.55]	[76.50]	[1963.11,1974.08]		
Orders									
MOCMQ	12	25.32	30.18	20.68	36.20	75.01	1974.04	0.0360	0.0714
		[0.22]	[0.55]	[3.97]	[3.17]	[36.95]	[1967.10,1984.04]		
MDOQ	6	33.06	44.62	41.49	76.47	84.30	1990.09	0.0261	0.000767
		[0.25]	[0.62]	[3.31]	[10.54]	[29.34]	[1988.06,1993.05]		
MSONDQ	9	71.62	78.34	62.06	90.02	45.06	1974.06	0.385	0.372
		[0.37]	[0.92]	[10.76]	[9.12]	[29.12]	[1960.02,1993.01]		
MO	6	20.16	25.60	24.87	73.76	196.54	1991.02	0.0322	0.00907
		[0.20]	[0.49]	[1.93]	[15.69]	[67.14]	[1990.08,1991.09]		
MOWU	6	28.79	37.66	35.10	63.67	81.37	1990.09	0.0500	0.00335
		[0.24]	[0.59]	[2.91]	[9.29]	[30.44]	[1988.03,1993.11]		
MDO	6	32.80	45.33	42.65	78.63	84.37	1990.10	0.0391	0.000231
		[0.25]	[0.62]	[3.25]	[11.44]	[30.29]	[1988.08,1993.04]		
MDUWU	6	34.79	46.40	42.95	81.46	89.64	1990.09	0.0208	0.00168
		[0.26]	[0.65]	[3.55]	[11.33]	[30.70]	[1988.08,1993.04]		
MNO	12	11.87	16.92	16.03	23.43	46.10	1982.11	0.513	0.000497
		[0.16]	[0.41]	[1.43]	[3.88]	[27.45]	[1974.10,1994.08]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
MNOU	6	19.69	21.75	22.84	4.66	−79.58	1990.11	0.224	0.312
		[0.19]	[0.48]	[1.94]	[7.70]	[33.77]	[1989.01,1994.11]		
MU	3	7.56	8.67	7.02	9.47	34.85	1973.12	0.697	0.171
		[0.12]	[0.30]	[1.31]	[0.91]	[28.24]	[1960.02,1999.12]		
MDU	3	7.89	8.89	7.18	9.73	35.49	1973.12	0.702	0.239
		[0.12]	[0.31]	[1.36]	[0.95]	[28.97]	[1960.02,1999.12]		
MNU	12	16.60	19.97	20.68	11.17	−45.99	1990.10	0.685	0.0532
		[0.18]	[0.44]	[1.67]	[5.89]	[28.82]	[1984.03,1999.12]		
MPCON	5	73.70	74.80	41.54	80.63	94.12	1965.12	0.362	0.883
		[0.37]	[0.92]	[17.85]	[7.48]	[85.34]	[1960.02,1970.03]		
MPCONQ	9	71.65	70.74	76.43	60.54	−20.80	1980.07	0.949	0.899
		[0.36]	[0.90]	[8.31]	[11.12]	[16.90]	[1960.02,1999.12]		
Consumption									
GMCQ	8	5.77	7.26	6.42	7.90	23.08	1974.07	0.908	0.0210
		[0.11]	[0.27]	[0.91]	[0.80]	[21.42]	[1960.02,1999.12]		
GMCDQ	8	27.27	34.92	26.96	40.64	50.76	1974.06	0.248	0.0194
		[0.25]	[0.61]	[4.67]	[3.96]	[29.98]	[1960.02,1985.02]		
GMCNQ	12	6.99	6.99	6.85	16.08	134.73	1991.02	0.731	0.996
		[0.12]	[0.30]	[0.76]	[6.15]	[93.40]	[1989.10,1993.07]		
GMCSQ	10	3.45	3.96	3.07	4.73	54.10	1974.09	0.214	0.185
		[0.08]	[0.21]	[0.53]	[0.49]	[30.88]	[1960.02,1981.02]		
GMCANQ	5	68.21	103.67	97.86	227.62	132.59	1990.12	0.0376	0.000226
		[0.42]	[1.04]	[9.04]	[41.74]	[47.76]	[1990.04,1992.10]		
Money and credit									
FM1	9	4.26	4.85	3.72	6.33	70.20	1980.02	0.0734	0.249
		[0.10]	[0.24]	[0.62]	[0.71]	[34.00]	[1966.03,1985.10]		
FM2	12	2.22	2.65	2.96	2.10	−29.00	1980.07	0.674	0.128
		[0.07]	[0.18]	[0.33]	[0.44]	[16.76]	[1960.02,1999.12]		
FM3	8	2.39	2.94	2.66	3.62	36.22	1981.11	0.541	0.0408
		[0.07]	[0.18]	[0.30]	[0.46]	[23.19]	[1960.06,1999.12]		
FML	12	3.34	2.93	2.87	6.99	143.92	1991.02	0.603	0.202
		[0.08]	[0.19]	[0.30]	[2.46]	[89.57]	[1989.03,1992.08]		
FM2DQ	10	2.78	3.78	4.04	2.43	−40.03	1982.08	0.407	0.00283
		[0.08]	[0.19]	[0.34]	[0.76]	[19.45]	[1971.01,1993.07]		
FMFBA	11	2.54	2.52	2.45	4.11	67.93	1990.12	0.843	0.936
		[0.07]	[0.18]	[0.26]	[1.22]	[53.11]	[1982.04,1997.12]		
FMBASE	12	3.95	3.93	2.72	4.34	59.47	1970.07	0.525	0.955
		[0.09]	[0.22]	[0.79]	[0.46]	[49.22]	[1960.02,1985.06]		
FMRRA	11	10.33	7.58	6.66	10.08	51.40	1982.01	0.645	0.00705
		[0.14]	[0.34]	[1.10]	[1.82]	[37.10]	[1960.02,1999.12]		
FMRNBA	1	16.29	22.94	10.65	26.19	145.86	1970.04	0.0766	0.00731
		[0.21]	[0.53]	[4.99]	[2.56]	[117.67]	[1961.02,1971.08]		
FMRNBC	1	14.25	19.62	10.80	21.95	103.34	1970.04	0.134	0.00605
		[0.20]	[0.47]	[3.92]	[2.01]	[76.12]	[1960.07,1972.11]		
FCLS	2	3.78	3.91	5.05	3.13	−38.01	1980.05	0.432	0.807
		[0.11]	[0.27]	[0.77]	[0.64]	[15.88]	[1974.02,1990.07]		
FCSGV	3	9.09	13.38	17.32	8.20	−52.68	1981.12	0.00577	0.00170
		[0.18]	[0.44]	[1.65]	[1.89]	[11.81]	[1978.11,1987.02]		
FCLRE	3	2.88	2.39	3.26	1.59	−51.29	1981.08	0.363	0.275
		[0.10]	[0.25]	[0.60]	[0.57]	[19.70]	[1974.02,1987.10]		
FCLIN	3	3.77	4.80	2.53	5.85	131.38	1977.11	0.0433	0.0715
		[0.11]	[0.28]	[0.92]	[0.63]	[87.61]	[1974.02,1979.03]		
FCLNBF	1	18.54	19.34	25.57	13.11	−48.73	1981.09	0.125	0.769
		[0.29]	[0.61]	[3.44]	[3.44]	[15.10]	[1975.01,1986.08]		
FCLNQ	7	8.38	10.57	7.22	11.90	64.82	1970.09	0.176	0.0215
		[0.13]	[0.33]	[1.65]	[1.04]	[40.22]	[1960.02,1976.03]		
FCLBMC	8	30046.13	26104.21	16402.27	39617.63	141.54	1980.03	0.0951	0.396
		[9.25]	[22.93]	[5597.65]	[6606.31]	[91.74]	[1962.03,1983.04]		
CCI30M	12	84.23	67.87	44.84	90.23	101.24	1974.11	0.234	0.136
		[0.48]	[1.11]	[14.27]	[14.06]	[71.33]	[1960.02,1978.06]		
CCINT	8	2319996.44	2708509.87	1844705.39	6163727.83	234.13	1990.09	0.000725	0.395
		[106.57]	[279.26]	[460733.31]	[921466.62]	[97.26]	[1988.09,1991.11]		
CCINV	7	1151469.04	1059468.32	786577.48	1696213.61	115.64	1982.10	0.283	0.659
		[71.93]	[188.48]	[230287.95]	[351770.66]	[77.37]	[1976.02,1985.06]		
Stock prices									
FSNCOM	2	33.39	60.56	38.75	65.82	69.85	1970.03	0.0763	9.61E-011
		[0.28]	[0.69]	[8.77]	[4.30]	[40.01]	[1963.02,1975.01]		
FSNIN	2	34.68	67.90	69.03	4.67	−93.23	1991.02	0.448	8.89E-012
		[0.32]	[0.77]	[4.52]	[33.85]	[49.03]	[1990.04,1992.08]		
FSNTR	2	49.99	87.62	90.75	65.29	−28.05	1990.08	0.761	1.73E-009
		[0.36]	[0.88]	[6.16]	[16.46]	[18.78]	[1981.04,1999.12]		
FSNUT	5	31.08	52.07	62.69	39.42	−37.12	1980.05	0.0185	5.83E-008
		[0.28]	[0.69]	[4.79]	[5.23]	[9.63]	[1976.05,1988.11]		
FSNFI	2	45.83	81.92	75.40	109.16	44.78	1982.08	0.164	1.32E-009
		[0.35]	[0.85]	[6.08]	[12.43]	[20.21]	[1977.02,1990.08]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
FSPCOM	2	33.23	58.62	46.75	67.14	43.59	1974.06	0.101	6.69E-010
		[0.28]	[0.68]	[5.86]	[4.96]	[20.89]	[1963.05,1984.06]		
FSPIN	2	33.73	59.72	47.43	68.55	44.51	1974.06	0.0953	7.30E-010
		[0.28]	[0.69]	[6.01]	[5.09]	[21.22]	[1963.07,1984.04]		
FSPCAP	1	39.98	70.01	39.91	77.96	95.34	1970.04	0.0127	1.46E-009
		[0.30]	[0.75]	[9.95]	[5.12]	[50.37]	[1965.05,1973.10]		
FSPTR	2	49.47	84.93	88.95	62.52	−29.71	1990.08	0.715	1.56E-007
		[0.38]	[0.96]	[6.82]	[16.09]	[18.87]	[1981.11,1999.12]		
FSPUT	5	32.99	53.40	62.50	39.91	−36.15	1980.04	0.0273	1.01E-007
		[0.27]	[0.66]	[4.55]	[5.54]	[10.01]	[1975.04,1990.04]		
FSPFI	2	50.71	88.03	76.28	125.43	64.45	1982.08	0.0135	3.50E-008
		[0.38]	[0.96]	[7.11]	[12.68]	[22.61]	[1978.10,1986.01]		
Dividends and volume									
FSDXP	1	35.52	62.49	39.95	68.44	71.30	1970.04	0.0804	3.79E-009
		[0.29]	[0.72]	[9.21]	[4.74]	[41.25]	[1962.02,1974.02]		
FSPXE	4	41.08	62.24	40.14	66.58	65.88	1970.01	0.297	2.05E-005
		[0.30]	[0.75]	[11.31]	[5.01]	[48.39]	[1960.02,1975.01]		
FSNVV3	12	31.01	38.27	51.71	23.04	−55.44	1982.04	0.0733	0.191
		[0.35]	[0.96]	[7.04]	[7.50]	[15.72]	[1980.10,1995.07]		
Interest rates									
FYFF	12	318.04	970.57	512.04	1226.50	139.53	1974.02	5.10E-007	2.12E-022
		[1.11]	[2.76]	[100.51]	[75.09]	[49.26]	[1971.01,1975.02]		
FYCP	12	348.41	862.99	332.56	1159.04	248.52	1974.02	1.42E-012	8.01E-018
		[1.08]	[2.60]	[86.83]	[64.87]	[93.06]	[1972.04,1974.07]		
FYGM3	12	296.64	779.53	385.53	959.40	148.85	1970.11	1.79E-007	1.30E-021
		[0.97]	[2.39]	[80.90]	[54.66]	[54.11]	[1968.02,1971.05]		
FYGM6	12	299.72	751.04	441.12	892.52	102.33	1970.11	3.30E-005	1.36E-021
		[0.93]	[2.31]	[76.44]	[51.65]	[36.97]	[1967.03,1971.12]		
FYGT1	12	338.46	736.13	542.41	975.04	79.76	1975.03	1.03E-005	1.09E-017
		[0.92]	[2.29]	[56.42]	[62.66]	[21.98]	[1971.07,1977.03]		
FYGT5	6	294.51	480.35	296.76	658.54	121.91	1974.11	1.66E-005	2.94E-006
		[0.86]	[2.12]	[51.20]	[50.44]	[41.89]	[1970.10,1976.08]		
FYGT10	12	245.52	399.07	248.71	573.68	130.66	1975.02	7.09E-007	1.61E-006
		[0.77]	[1.90]	[39.22]	[42.27]	[40.15]	[1971.09,1976.04]		
FYAAAC	12	178.08	277.95	155.36	420.32	170.55	1975.02	2.36E-007	7.83E-005
		[0.68]	[1.69]	[30.91]	[33.31]	[57.95]	[1971.11,1976.02]		
FYBAAC	4	171.49	273.84	144.90	432.86	198.72	1975.03	5.29E-009	4.07E-005
		[0.68]	[1.68]	[29.86]	[33.16]	[65.67]	[1972.06,1975.11]		
FWAFIT	3	267.72	440.65	635.44	329.33	−48.17	1980.03	0.00881	0.000270
		[1.20]	[2.55]	[69.51]	[52.54]	[10.03]	[1978.11,1986.05]		
FYFHA	4	247.14	400.68	204.22	642.98	214.85	1975.03	2.11E-007	0.000226
		[0.88]	[2.17]	[50.20]	[55.75]	[82.06]	[1971.09,1975.10]		
Exchange rates									
EXRUS	2	18.37	23.98	22.20	78.88	255.23	1991.02	0.00739	0.0608
		[0.24]	[0.71]	[2.81]	[15.64]	[83.56]	[1990.09,1991.09]		
EXRGER	1	29.64	31.60	28.37	131.84	364.80	1991.02	0.000164	0.653
		[0.30]	[0.85]	[4.03]	[22.41]	[102.93]	[1990.10,1991.06]		
EXRSW	1	32.67	41.17	38.03	138.34	263.72	1991.02	0.00355	0.0895
		[0.32]	[0.91]	[4.70]	[26.14]	[82.10]	[1990.09,1991.08]		
EXRJAN	3	30.23	36.78	35.16	86.97	147.38	1991.02	0.345	0.163
		[0.31]	[0.88]	[4.47]	[24.88]	[77.45]	[1989.09,1992.07]		
EXRUK	3	26.02	28.95	26.40	107.91	308.67	1991.02	0.00636	0.490
		[0.29]	[0.84]	[3.99]	[22.22]	[104.39]	[1990.09,1991.09]		
EXRCAN	12	11.67	10.29	6.71	11.11	65.64	1980.05	0.941	0.379
		[0.18]	[0.51]	[3.42]	[1.64]	[87.82]	[1975.02,1999.12]		
Producer prices									
PWFSA	9	3.98	6.25	5.97	10.59	77.44	1990.11	0.265	2.64E-005
		[0.10]	[0.25]	[0.51]	[2.04]	[37.39]	[1989.05,1995.05]		
PWFCSA	9	5.05	7.12	6.80	13.97	105.56	1990.12	0.142	0.00126
		[0.11]	[0.27]	[0.61]	[2.80]	[45.05]	[1989.11,1993.07]		
PWIMSA	4	3.75	7.53	3.92	9.18	134.19	1970.11	0.000256	3.77E-010
		[0.11]	[0.26]	[0.98]	[0.66]	[61.02]	[1966.03,1971.10]		
PWCMSA	11	19.83	26.34	20.75	67.52	225.35	1982.11	7.04E-009	0.0144
		[0.22]	[0.55]	[2.52]	[6.85]	[51.49]	[1981.10,1983.07]		
PWFXSA	9	4.32	5.07	4.36	9.46	117.12	1982.11	0.0188	0.205
		[0.11]	[0.27]	[0.58]	[1.44]	[44.10]	[1979.08,1985.04]		
PW160A	12	16.99	15.52	22.44	10.78	−51.96	1981.12	0.141	0.547
		[0.22]	[0.64]	[3.58]	[2.96]	[15.25]	[1976.01,1992.05]		
PW150A	9	16.04	16.24	22.72	11.19	−50.75	1982.01	0.251	0.942
		[0.23]	[0.68]	[3.88]	[3.42]	[17.25]	[1978.01,1999.12]		
PW561	5	45.76	76.86	53.09	252.15	374.96	1982.11	2.74E-017	0.000219
		[0.39]	[0.98]	[7.70]	[20.91]	[79.35]	[1981.12,1983.01]		
PWCM	9	5.17	5.13	5.80	3.42	−40.98	1981.12	0.397	0.944
		[0.10]	[0.26]	[0.64]	[1.02]	[18.84]	[1973.05,1999.12]		

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Series	p	σ_{E}	σ_0	σ_1	σ_2	$\Delta\sigma$	τ_v	p-value$_v$	p-value$_{nl}$
PWXFA	9	4.13	6.96	5.98	12.19	103.73	1982.10	0.000171	3.50E-007
		[0.11]	[0.26]	[0.54]	[1.26]	[27.99]	[1981.06,1984.10]		
PSM99Q	12	13.56	15.41	6.96	18.75	169.29	1970.09	0.00491	0.240
		[0.17]	[0.42]	[2.71]	[1.70]	[107.52]	[1965.02,1973.06]		
PSCCOM	12	18.94	18.32	11.01	20.62	87.35	1970.06	0.342	0.775
		[0.20]	[0.49]	[4.08]	[2.29]	[72.49]	[1960.02,1974.09]		
PSCFOO	12	28.56	30.94	11.70	35.14	200.31	1970.02	0.0698	0.493
		[0.25]	[0.63]	[7.57]	[3.53]	[196.56]	[1962.10,1972.07]		
PSCMAT	6	19.46	21.18	11.44	23.53	105.56	1970.03	0.178	0.424
		[0.20]	[0.49]	[4.52]	[2.22]	[83.42]	[1960.09,1976.05]		
PZFR	6	19.35	18.50	21.40	10.55	−50.71	1982.11	0.608	0.784
		[0.25]	[0.73]	[3.38]	[5.61]	[27.33]	[1976.02,1999.12]		
PCGOLD	7	44.49	73.25	83.28	33.12	−60.24	1990.09	0.169	0.00112
		[0.42]	[1.24]	[9.25]	[18.49]	[22.64]	[1988.01,1997.06]		
Consumer prices									
PUNEW	9	1.88	3.03	2.05	3.50	70.48	1973.12	0.0422	3.47E-006
		[0.07]	[0.17]	[0.40]	[0.28]	[35.52]	[1967.03,1983.01]		
PU81	12	3.84	4.35	4.78	2.56	−46.52	1982.08	0.453	0.318
		[0.10]	[0.25]	[0.52]	[1.06]	[23.01]	[1977.12,1999.12]		
PUH	9	1.97	4.50	3.75	5.41	44.27	1980.05	0.0941	5.63E-014
		[0.08]	[0.20]	[0.42]	[0.46]	[20.15]	[1970.09,1987.04]		
PU83	6	3.81	3.16	1.95	3.78	94.03	1974.01	0.322	0.149
		[0.09]	[0.23]	[0.71]	[0.51]	[75.50]	[1960.02,1980.03]		
PU84	8	5.33	6.98	5.63	10.65	89.12	1982.01	0.00601	0.0136
		[0.11]	[0.28]	[0.72]	[1.18]	[31.97]	[1975.07,1985.02]		
PU85	6	2.08	2.26	3.89	1.94	−50.15	1970.01	0.0967	0.548
		[0.07]	[0.18]	[0.67]	[0.30]	[11.44]	[1963.12,1975.10]		
PUC	9	2.99	3.94	3.34	5.70	70.71	1982.02	0.0476	0.0122
		[0.08]	[0.21]	[0.40]	[0.69]	[29.19]	[1974.05,1988.01]		
PUCD	12	2.50	3.50	3.04	4.42	45.17	1981.09	0.220	0.00113
		[0.07]	[0.19]	[0.34]	[0.49]	[22.96]	[1970.05,1995.12]		
PUS	9	2.00	3.39	2.51	4.42	75.90	1975.02	0.00380	4.89E-007
		[0.07]	[0.18]	[0.35]	[0.37]	[28.34]	[1968.07,1979.01]		
PUXF	9	2.05	3.24	2.66	3.99	50.19	1980.02	0.0469	1.05E-006
		[0.07]	[0.17]	[0.30]	[0.34]	[21.08]	[1968.08,1986.01]		
PUXHS	12	2.45	3.17	2.42	3.54	46.49	1973.12	0.308	0.00735
		[0.07]	[0.17]	[0.44]	[0.30]	[29.24]	[1960.02,1989.05]		
PUXM	9	2.21	3.25	2.36	3.68	56.01	1973.12	0.113	5.67E-005
		[0.07]	[0.17]	[0.42]	[0.29]	[30.09]	[1964.01,1984.04]		
GMDC	9	1.47	2.18	1.80	3.05	69.11	1981.11	0.00833	6.77E-005
		[0.06]	[0.14]	[0.19]	[0.30]	[24.41]	[1976.10,1987.04]		
GMDCD	12	2.51	3.29	3.36	0.93	−72.30	1991.01	0.782	0.0130
		[0.08]	[0.19]	[0.30]	[1.69]	[50.23]	[1988.02,1996.02]		
GMDCN	9	2.85	3.76	3.19	5.46	71.41	1982.02	0.0648	0.0157
		[0.08]	[0.21]	[0.40]	[0.69]	[30.76]	[1973.09,1988.06]		
GMDCS	9	1.32	1.76	0.92	2.14	131.87	1970.11	0.00196	0.00521
		[0.05]	[0.13]	[0.26]	[0.17]	[67.01]	[1965.03,1972.06]		
Miscellaneous									
PMI	12	2604.43	2970.86	3495.57	1897.58	−45.71	1981.09	0.0772	0.214
		[2.33]	[5.78]	[331.06]	[473.48]	[14.49]	[1974.02,1991.10]		
PMP	12	3931.20	3728.61	4015.89	1877.25	−53.25	1982.10	0.521	0.648
		[2.86]	[7.09]	[440.82]	[1119.07]	[28.33]	[1972.11,1995.04]		
PMNO	4	4148.55	4521.87	5106.89	2091.83	−59.04	1982.06	0.116	0.454
		[3.03]	[7.52]	[511.59]	[1042.67]	[20.83]	[1977.03,1991.04]		
PMDEL	12	3181.22	5171.46	6227.44	2689.93	−56.81	1981.11	0.00292	1.70E-005
		[2.92]	[7.24]	[504.65]	[773.62]	[12.91]	[1980.10,1989.04]		
PMNV	12	3447.11	3097.00	3444.07	2220.18	−35.54	1981.12	0.624	0.337
		[2.59]	[6.43]	[398.45]	[633.30]	[19.84]	[1967.09,1999.12]		
PMEMP	12	2924.19	2941.32	3390.66	2022.21	−40.36	1981.09	0.255	0.956
		[2.40]	[5.96]	[353.09]	[504.98]	[16.14]	[1970.01,1997.05]		
PMCP	12	4227.92	4263.93	3832.43	7962.52	107.77	1990.08	0.101	0.944
		[3.08]	[7.65]	[502.42]	[1470.95]	[47.06]	[1987.12,1995.05]		
HHSNTN	0	3752.69	4899.70	4457.10	34111.10	665.32	1991.02	5.07E-015	0.0212
		[3.03]	[7.51]	[434.85]	[3532.71]	[108.89]	[1990.12,1991.03]		
F6EDM	12	63.99	58.20	93.58	45.56	−51.31	1974.03	0.0709	0.480
		[0.40]	[1.00]	[14.72]	[8.80]	[12.13]	[1970.11,1988.06]		
FTMC6	12	99.22	125.16	219.57	119.92	−45.39	1970.03	0.299	0.0221
		[0.48]	[1.18]	[45.47]	[10.72]	[12.32]	[1967.01,1972.03]		
FTMM6	5	59.07	68.38	72.85	41.00	−43.72	1982.11	0.802	0.278
		[0.41]	[1.03]	[8.58]	[21.22]	[29.88]	[1973.03,1999.12]		

Results for SupW tests for structural change in recession volatility for individual series, when a nonlinear AR model with structural change during expansions is used for the conditional mean. The columns headed σ_{R} and σ_0 contain estimates of the conditional standard deviation during expansions and recessions under the null hypothesis, respectively. Columns headed σ_1 and σ_2 contain estimates of the conditional standard deviation during recessions before and after the break, respectively. The column headed $\Delta\sigma$ contains the percent change in standard deviation. The estimated volatility break date is given in the column headed τ_v, with the 90% confidence interval given in brackets. The column headed p-value$_v$ contains the asymptotic p-value of the corresponding SupW test. The column headed p-value$_{nl}$ contains the asymptotic p-value of the Wald test for nonlinearity in the conditional volatility. Figures in brackets below parameter estimates are standard errors.

Table A.13: Tests for multiple structural changes in conditional variance - linear model with constant parameters for conditional mean

Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
Production								
IP	1	9.51	1984.03	6.08				
		[0.45]	[1983.03,1989.01]	[0.55]				
IPP	1	8.99	1992.07	5.75				
		[0.36]	[1991.04,1996.06]	[0.76]				
IPF	1	9.60	1992.07	6.70				
		[0.40]	[1990.06,1998.02]	[0.83]				
IPC	1	12.03	1983.10	8.55				
		[0.55]	[1981.10,1990.04]	[0.66]				
IPCD	0							
IPCN	1	9.20	1990.03	7.03				
		[0.35]	[1986.10,1997.05]	[0.61]				
IPE	1	13.59	1992.04	9.25				
		[0.55]	[1990.02,1997.01]	[1.13]				
IPI	1	11.11	1992.06	6.34				
		[0.45]	[1991.12,1995.04]	[0.93]				
IPM	1	12.90	1984.03	6.87				
		[0.58]	[1983.09,1986.12]	[0.71]				
IPMD	1	18.12	1984.01	10.36				
		[0.86]	[1983.07,1987.09]	[1.06]				
IPMND	2	11.28	1974.07	18.41	1984.04	9.63		
		[0.81]	[1970.11,1975.03]	[0.99]	[1983.11,1986.09]	[0.78]		
IPMFG	1	10.43	1984.01	6.63				
		[0.51]	[1982.12,1989.01]	[0.62]				
IPD	1	13.47	1983.09	9.23				
		[0.72]	[1981.04,1991.03]	[0.87]				
IPN	1	9.07	1990.04	5.69				
		[0.38]	[1989.08,1994.05]	[0.68]				
IPMIN	2	12.23	1974.05	17.44	1986.11	10.42		
		[0.92]	[1968.04,1976.11]	[0.99]	[1985.11,1990.04]	[0.97]		
IPUT	1	11.97	1973.08	20.51				
		[1.27]	[1970.02,1974.03]	[0.91]				
IPX	1	778.18	1984.03	495.35				
		[42.60]	[1983.03,1988.12]	[43.16]				
IPXMCA	1	845.21	1984.01	527.05				
		[40.36]	[1982.12,1988.07]	[49.56]				
IPXDCA	1	1054.10	1983.09	711.43				
		[66.02]	[1981.05,1990.07]	[64.82]				
IPXNCA	1	781.91	1990.04	468.31				
		[35.84]	[1989.09,1993.07]	[54.37]				
IPXMIN	1	1399.24	1986.06	939.65				
		[74.26]	[1984.10,1991.12]	[86.74]				
IPXUT	1	1340.17	1980.12	1852.48				
		[121.13]	[1973.05,1984.01]	[99.88]				
GMPYQ	0							
GMYXPQ	0							
(Un)Employment								
LHEL	1	1595.22	1972.11	2498.60				
		[151.04]	[1969.01,1974.01]	[103.97]				
LHELX	2	57.50	1980.09	29.97	1994.01	54.32		
		[2.79]	[1980.05,1983.07]	[3.48]	[1991.11,1994.06]	[5.22]		
LHEM	1	3.80	1986.02	2.39				
		[0.16]	[1985.01,1990.01]	[0.23]				
LHNAG	1	3.54	1985.09	2.40				
		[0.15]	[1984.01,1990.05]	[0.20]				
LHUR	0							
LHU680	1	781.01	1966.02	488.34				
		[50.53]	[1964.12,1968.08]	[21.43]				
LHU5	3	64.40	1970.05	49.99	1984.09	29.61	1993.09	56.00
		[3.90]	[1965.04,1980.03]	[3.32]	[1984.01,1987.10]	[4.18]	[1991.03,1994.01]	[5.02]
LHU14	1	74.22	1975.07	52.86				
		[3.53]	[1973.08,1980.11]	[2.81]				
LHU15	1	80.29	1971.03	52.17				
		[4.04]	[1969.09,1973.11]	[2.52]				
LHU26	1	110.56	1976.07	80.36				
		[5.04]	[1973.07,1980.12]	[4.23]				
LHU27	1	102.36	1976.06	61.45				
		[4.71]	[1975.08,1979.06]	[3.94]				

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
LHCH	1	213.53	1989.09	301.34				
		[10.04]	[1985.07,1992.05]	[23.50]				
LPNAG	1	2.43	1983.07	1.06				
		[0.10]	[1983.04,1985.04]	[0.12]				
LP	1	2.80	1983.07	1.17				
		[0.13]	[1983.04,1985.06]	[0.15]				
LPGD	1	4.98	1984.02	2.06				
		[0.24]	[1983.11,1986.05]	[0.30]				
LPMI	2	7.14	1971.06	11.67	1986.08	6.17		
		[0.82]	[1965.09,1972.07]	[0.71]	[1985.10,1990.06]	[0.76]		
LPCC	1	13.58	1984.03	5.90				
		[0.70]	[1983.12,1986.10]	[0.86]				
LPEM	1	4.47	1983.10	1.74				
		[0.25]	[1983.07,1986.06]	[0.30]				
LPED	1	6.09	1983.10	2.54				
		[0.38]	[1983.06,1987.05]	[0.46]				
LPEN	1	3.66	1982.11	1.55				
		[0.16]	[1982.08,1984.08]	[0.18]				
LPSP	1	1.78	1984.02	1.01				
		[0.08]	[1983.03,1986.10]	[0.09]				
LPTU	1	5.77	1979.06	3.62				
		[0.36]	[1976.03,1984.08]	[0.35]				
LPT	2	2.87	1985.01	1.89	1993.05	1.20		
		[0.13]	[1983.12,1990.03]	[0.22]	[1991.12,1996.05]	[0.25]		
LPFR	1	1.59	1981.06	1.16				
		[0.07]	[1979.01,1987.06]	[0.08]				
LPS	1	2.21	1983.07	1.41				
		[0.10]	[1982.06,1987.07]	[0.12]				
LPGOV	1	2.82	1991.01	1.13				
		[0.14]	[1990.11,1993.06]	[0.27]				
LW	1	146.42	1984.04	90.44				
		[7.40]	[1982.10,1987.12]	[8.20]				
LPHRM	1	289.27	1982.02	171.12				
		[15.19]	[1981.06,1986.11]	[16.90]				
LPMOSA	2	134.10	1972.12	205.90	1980.12	111.33		
		[10.54]	[1967.08,1974.04]	[13.39]	[1980.04,1984.01]	[8.69]		
Wages and salaries								
LEH	1	2.94	1989.05	1.18				
		[0.13]	[1989.03,1990.11]	[0.19]				
LEHCC	1	6.41	1988.04	3.87				
		[0.29]	[1987.01,1992.03]	[0.46]				
LEHM	1	4.09	1982.02	2.42				
		[0.20]	[1981.01,1985.10]	[0.22]				
LEHTU	1	5.32	1984.02	2.97				
		[0.26]	[1983.08,1987.04]	[0.29]				
LEHTT	2	3.50	1981.11	2.56	1990.01	1.77		
		[0.16]	[1979.05,1988.01]	[0.23]	[1988.01,1994.06]	[0.21]		
LEHFR	1	5.51	1988.11	2.73				
		[0.22]	[1988.06,1990.07]	[0.33]				
LEHS	1	3.93	1989.02	1.57				
		[0.16]	[1988.12,1990.05]	[0.23]				
Construction								
HSFR	1	92.09	1992.04	58.65				
		[3.83]	[1991.01,1996.04]	[7.85]				
HSNE	0							
HSMW	1	175.89	1991.02	121.25				
		[7.72]	[1989.07,1997.03]	[14.49]				
HSSOU	2	93.60	1973.01	133.50	1984.03	86.91		
		[6.87]	[1968.04,1975.05]	[7.42]	[1982.08,1987.09]	[6.25]		
HSWST	0							
HSBR	2	50.27	1966.01	82.12	1991.03	43.45		
		[7.39]	[1962.02,1966.10]	[3.61]	[1990.11,1993.11]	[6.12]		
HSBNE	1	138.79	1985.01	101.40				
		[6.71]	[1981.09,1992.12]	[8.51]				
HSBMW	2	106.69	1978.12	151.42	1990.05	68.70		
		[7.29]	[1970.11,1980.12]	[9.13]	[1990.01,1992.10]	[9.96]		
HSBSOU	0							
HSBWST	0							
HNS	0							
HNSNE	0							

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
HNSMW	0							
HNSSOU	1	132.56	1984.09	90.73				
		[7.67]	[1982.11,1988.11]	[6.41]				
HNSWST	1	142.55	1995.05	92.51				
		[7.09]	[1994.02,1999.06]	[15.31]				
HNR	2	530.06	1979.10	977.51	1985.02	516.24		
		[36.75]	[1977.08,1980.04]	[63.16]	[1984.07,1987.02]	[37.87]		
HMOB	3	57.30	1972.08	84.81	1980.09	43.74	1993.01	28.42
		[3.79]	[1968.09,1974.09]	[4.73]	[1980.04,1982.07]	[3.83]	[1991.10,1996.09]	[5.12]
CONTC	1	21.72	1984.02	14.30				
		[1.03]	[1982.07,1988.02]	[1.13]				
CONPC	1	22.68	1981.06	15.03				
		[1.12]	[1979.12,1985.09]	[1.06]				
CONQC	2	33.05	1974.10	50.09	1983.05	29.43		
		[2.77]	[1971.02,1976.04]	[2.95]	[1982.06,1985.11]	[2.12]		
CONDO9	1	69.67	1968.02	101.47				
		[8.32]	[1962.09,1969.09]	[4.19]				
Trade								
MSMTQ	1	12.58	1992.08	8.03				
		[0.46]	[1991.09,1995.11]	[0.98]				
MSMQ	1	17.91	1980.10	13.41				
		[0.81]	[1977.10,1988.04]	[0.85]				
MSDQ	1	25.11	1983.06	19.12				
		[1.13]	[1979.09,1991.12]	[1.34]				
MSNQ	2	12.22	1972.05	17.10	1983.01	11.01		
		[0.84]	[1966.11,1974.06]	[0.90]	[1982.02,1986.08]	[0.72]		
WTQ	1	18.04	1987.02	11.40				
		[0.76]	[1986.01,1990.11]	[1.10]				
WTDQ	2	13.27	1965.12	20.51	1993.04	12.30		
		[1.76]	[1962.06,1967.08]	[0.82]	[1992.05,1996.01]	[1.65]		
WTNQ	1	24.04	1987.02	15.89				
		[0.99]	[1985.11,1991.04]	[1.43]				
RTQ	1	14.99	1987.05	8.96				
		[0.66]	[1986.08,1991.01]	[0.98]				
RTDQ	1	33.23	1991.02	15.96				
		[1.51]	[1990.12,1993.09]	[2.83]				
RTNQ	1	10.95	1980.04	6.94				
		[0.45]	[1979.04,1983.06]	[0.46]				
Inventories								
IVMTQ	1	4.26	1991.03	2.87				
		[0.16]	[1989.10,1995.02]	[0.30]				
IVMFGQ	1	4.55	1985.01	3.49				
		[0.19]	[1981.04,1993.06]	[0.25]				
IVMFDQ	1	6.46	1971.03	4.76				
		[0.39]	[1968.03,1979.01]	[0.24]				
IVMFNQ	1	5.84	1986.12	4.22				
		[0.24]	[1984.05,1992.09]	[0.34]				
IVWRQ	1	9.29	1985.02	6.00				
		[0.39]	[1983.11,1988.11]	[0.50]				
IVRRQ	1	9.37	1988.01	6.66				
		[0.39]	[1985.04,1993.08]	[0.60]				
IVSRQ	1	17.80	1992.09	11.32				
		[0.68]	[1991.09,1996.03]	[1.45]				
IVSRMQ	1	26.25	1993.01	16.79				
		[1.06]	[1992.03,1997.02]	[2.32]				
IVSRWQ	2	17.14	1971.06	23.85	1993.05	16.01		
		[1.40]	[1965.11,1973.07]	[1.01]	[1992.02,1997.06]	[1.84]		
IVSRRQ	2	16.52	1973.03	26.35	1987.03	17.08		
		[1.50]	[1968.10,1974.05]	[1.45]	[1985.10,1992.02]	[1.52]		
Orders								
MOCMQ	1	29.94	1991.12	19.47				
		[1.19]	[1990.12,1995.12]	[2.37]				
MDOQ	0							
MSONDQ	2	46.01	1966.10	103.86	1972.09	75.90		
		[6.88]	[1965.01,1966.12]	[7.35]	[1970.02,1979.08]	[3.43]		
MO	0							
MOWU	0							
MDO	0							
MDUWU	0							

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
MNO	2	11.62	1972.05	15.88	1992.09	9.36		
		[0.94]	[1965.04,1975.02]	[0.73]	[1991.12,1995.10]	[1.23]		
MNOU	0							
MU	0							
MDU	0							
MNU	2	17.30	1973.11	25.00	1980.05	15.45		
		[1.11]	[1969.08,1975.11]	[1.62]	[1979.05,1983.02]	[0.93]		
MPCON	3	51.09	1967.12	106.13	1979.03	79.06	1993.07	54.02
		[5.70]	[1966.08,1968.03]	[4.78]	[1976.10,1984.01]	[4.24]	[1991.10,1996.10]	[6.33]
MPCONQ	2	53.70	1967.12	101.04	1980.05	71.61		
		[5.59]	[1966.06,1968.05]	[4.46]	[1978.07,1983.10]	[3.55]		
Consumption								
GMCQ	1	7.07	1988.04	4.45				
		[0.30]	[1987.02,1992.02]	[0.47]				
GMCDQ	2	30.04	1985.04	44.27	1991.04	20.29		
		[1.61]	[1977.11,1986.11]	[3.31]	[1991.02,1993.12]	[2.76]		
GMCNQ	1	8.44	1984.11	5.70				
		[0.37]	[1982.11,1989.05]	[0.47]				
GMCSQ	2	2.84	1971.11	4.54	1993.06	2.80		
		[0.27]	[1968.04,1972.11]	[0.20]	[1992.10,1996.11]	[0.36]		
GMCANQ	2	79.48	1985.07	123.92	1991.06	53.02		
		[4.58]	[1978.07,1986.08]	[9.50]	[1991.04,1994.03]	[7.93]		
Money and credit								
FM1	2	3.44	1979.03	6.77	1988.01	4.48		
		[0.25]	[1977.06,1979.09]	[0.37]	[1986.10,1991.07]	[0.32]		
FM2	2	1.47	1966.04	2.85	1987.06	2.05		
		[0.25]	[1963.09,1966.07]	[0.14]	[1984.04,1994.07]	[0.18]		
FM3	1	1.52	1966.04	2.77				
		[0.25]	[1963.11,1966.10]	[0.11]				
FML	1	2.93	1978.10	3.81				
		[0.17]	[1972.01,1982.08]	[0.16]				
FM2DQ	2	2.31	1970.01	3.82	1983.04	2.80		
		[0.24]	[1966.04,1970.10]	[0.20]	[1981.01,1991.03]	[0.18]		
FMFBA	0							
FMBASE	1	3.55	1979.09	4.48				
		[0.22]	[1967.11,1985.04]	[0.22]				
FMRRA	0							
FMRNBA	2	15.03	1977.07	26.75	1989.08	12.42		
		[1.27]	[1973.10,1978.05]	[1.53]	[1989.05,1992.02]	[1.66]		
FMRNBC	2	13.50	1977.07	24.06	1986.12	11.92		
		[0.99]	[1974.06,1978.02]	[1.35]	[1986.09,1989.04]	[1.31]		
FCLS	1	3.71	1995.02	5.12				
		[0.20]	[1987.11,1997.04]	[0.43]				
FCSGV	0							
FCLRE	1	2.58	1995.11	4.76				
		[0.17]	[1992.08,1996.04]	[0.39]				
FCLIN	1	3.63	1996.02	6.56				
		[0.22]	[1994.02,1996.11]	[0.52]				
FCLNBF	1	16.36	1985.09	24.06				
		[1.32]	[1981.09,1987.06]	[1.56]				
FCLNQ	1	5.93	1969.12	9.89				
		[0.68]	[1966.12,1970.10]	[0.39]				
FCLBMC	3	4056.55	1970.09	17540.98	1979.09	42856.67	1994.01	65107.97
		[2673.71]	[1969.11,1970.10]	[2910.76]	[1978.08,1980.01]	[2306.51]	[1989.01,1994.11]	[3589.96]
CCI30M	1	48.99	1973.10	107.86				
		[6.54]	[1971.06,1973.12]	[5.18]				
CCINT	1	623489.93	1979.11	2796974.96				
		[325846.54]	[1979.07,1979.11]	[160330.16]				
CCINV	2	285772.28	1979.10	946923.76	1985.02	1627416.75		
		[152967.94]	[1978.08,1979.11]	[128267.52]	[1982.07,1985.11]	[91055.21]		
Stock prices								
FSNCOM	0							
FSNIN	1	43.73	1991.02	29.08				
		[2.10]	[1989.04,1995.12]	[3.47]				
FSNTR	1	61.22	1991.03	42.51				
		[2.64]	[1988.12,1995.09]	[4.39]				
FSNUT	1	44.64	1976.01	31.66				
		[2.65]	[1974.03,1981.04]	[1.62]				

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
FSNFI	0							
FSPCOM	0							
FSPIN	0							
FSPCAP	0							
FSPTR	0							
FSPUT	2	29.99	1969.11	57.17	1976.01	33.80		
		[2.66]	[1967.10,1970.04]	[3.36]	[1975.06,1978.09]	[1.71]		
FSPFI	0							
Dividends and volume								
FSDXP	0							
FSPXE	0							
FSNVV3	2	56.98	1982.04	31.86	1990.02	18.41		
		[2.98]	[1981.09,1984.02]	[2.86]	[1989.07,1992.05]	[2.94]		
Interest rates								
FYFF	3	425.11	1977.01	1019.16	1982.12	334.66	1992.08	167.85
		[43.59]	[1973.02,1977.03]	[73.89]	[1982.11,1984.02]	[57.81]	[1992.03,1995.01]	[66.37]
FYCP	3	259.76	1973.05	558.88	1979.08	829.57	1989.04	257.44
		[41.35]	[1971.04,1973.08]	[60.40]	[1971.11,1981.02]	[48.57]	[1989.02,1990.02]	[52.31]
FYGM3	3	200.39	1969.05	478.81	1979.08	962.45	1985.06	246.78
		[41.66]	[1967.10,1969.08]	[39.76]	[1976.10,1979.11]	[52.70]	[1985.05,1985.10]	[33.43]
FYGM6	3	263.27	1973.02	758.91	1982.10	366.07	1989.04	236.77
		[33.56]	[1971.06,1973.03]	[39.04]	[1982.07,1985.05]	[47.61]	[1988.01,1992.08]	[37.17]
FYGT1	3	210.43	1969.05	508.55	1977.01	901.33	1982.12	335.14
		[37.72]	[1968.03,1969.08]	[41.62]	[1973.12,1977.05]	[47.37]	[1982.10,1984.06]	[27.95]
FYGT5	3	139.58	1968.04	327.43	1979.08	649.61	1986.07	311.26
		[29.23]	[1966.11,1968.07]	[24.94]	[1977.09,1979.11]	[31.92]	[1986.04,1988.03]	[22.92]
FYGT10	3	90.23	1966.09	244.38	1979.08	589.50	1986.07	279.84
		[26.82]	[1965.08,1966.11]	[19.27]	[1978.05,1979.09]	[26.34]	[1986.04,1987.12]	[18.91]
FYAAAC	3	38.30	1966.07	146.48	1979.08	512.70	1985.07	214.87
		[21.07]	[1965.06,1966.08]	[14.85]	[1978.11,1979.09]	[22.09]	[1985.04,1986.07]	[14.15]
FYBAAC	3	34.27	1966.02	129.20	1979.08	431.53	1985.07	207.73
		[19.71]	[1965.01,1966.03]	[13.23]	[1978.10,1979.09]	[19.99]	[1985.03,1986.11]	[12.80]
FWAFIT	1	469.95	1981.11	214.60				
		[28.35]	[1981.06,1983.04]	[22.51]				
FYFHA	3	23.97	1966.01	166.56	1979.08	624.49	1986.04	360.39
		[34.40]	[1965.08,1966.01]	[22.86]	[1978.08,1979.09]	[32.63]	[1985.07,1988.12]	[22.79]
Exchange rates								
EXRUS	1	12.00	1979.06	20.59				
		[2.20]	[1976.08,1980.05]	[1.02]				
EXRGER	1	19.41	1978.09	31.76				
		[3.50]	[1975.12,1979.09]	[1.49]				
EXRSW	0							
EXRJAN	0							
EXRUK	2	24.84	1984.06	36.36	1993.04	17.97		
		[2.05]	[1980.01,1985.11]	[2.12]	[1992.12,1995.01]	[2.44]		
EXRCAN	0							
Producer prices								
PWFSA	2	3.71	1971.06	7.03	1977.05	4.09		
		[0.37]	[1967.11,1971.10]	[0.51]	[1976.08,1981.10]	[0.26]		
PWFCSA	1	5.92	1991.08	4.05				
		[0.27]	[1990.01,1998.02]	[0.53]				
PWIMSA	3	3.26	1972.11	7.91	1980.04	4.95	1991.05	3.25
		[0.39]	[1970.04,1972.12]	[0.51]	[1979.04,1986.06]	[0.41]	[1990.04,1996.02]	[0.47]
PWCMSA	3	13.36	1972.10	36.56	1978.10	15.83	1990.05	32.30
		[1.81]	[1971.03,1972.11]	[2.64]	[1978.08,1981.03]	[1.90]	[1987.12,1990.07]	[2.09]
PWFXSA	1	2.49	1973.01	4.95				
		[0.61]	[1969.11,1973.06]	[0.26]				
PW160A	1	24.53	1980.08	16.05				
		[1.74]	[1979.03,1983.10]	[0.93]				
PW150A	1	25.35	1981.03	14.17				
		[1.70]	[1980.08,1983.10]	[0.97]				
PW561	2	19.43	1973.08	33.98	1986.01	107.44		
		[4.89]	[1968.06,1973.10]	[5.12]	[1984.08,1986.02]	[4.84]		

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
PWCM	2	3.82	1968.11	7.96	1980.06	4.65		
		[0.48]	[1966.06,1969.01]	[0.42]	[1979.11,1984.01]	[0.32]		
PWXFA	1	6.79	1975.03	4.56				
		[0.57]	[1973.05,1983.09]	[0.31]				
PSM99Q	2	10.92	1971.12	19.95	1983.02	13.28		
		[1.01]	[1969.10,1972.07]	[1.05]	[1981.05,1986.11]	[0.85]		
PSCCOM	2	13.76	1972.11	32.00	1981.02	19.23		
		[1.45]	[1971.01,1972.12]	[1.81]	[1980.03,1984.07]	[1.20]		
PSCFOO	2	20.37	1972.11	54.74	1978.11	29.42		
		[2.35]	[1971.02,1972.12]	[3.43]	[1978.04,1981.11]	[1.83]		
PSCMAT	2	17.02	1972.09	27.04	1987.05	17.18		
		[1.40]	[1969.02,1973.09]	[1.30]	[1986.06,1991.01]	[1.41]		
PZFR	1	30.16	1980.10	20.92				
		[2.52]	[1979.01,1986.06]	[1.25]				
PCGOLD	2	53.14	1979.08	106.73	1983.03	39.36		
		[7.50]	[1977.08,1979.12]	[7.50]	[1982.12,1984.06]	[3.47]		
Consumer prices								
PUNEW	2	1.81	1972.12	3.11	1983.04	1.73		
		[0.16]	[1969.06,1973.08]	[0.18]	[1982.06,1986.04]	[0.14]		
PU81	1	6.00	1979.09	3.17				
		[0.39]	[1979.05,1983.12]	[0.30]				
PUH	3	2.73	1978.07	5.31	1983.04	2.09	1991.06	1.40
		[0.21]	[1976.02,1978.10]	[0.31]	[1983.02,1984.11]	[0.24]	[1990.04,1994.07]	[0.23]
PU83	2	2.44	1972.06	3.43	1986.01	5.72		
		[0.27]	[1966.12,1974.09]	[0.26]	[1983.04,1986.10]	[0.25]		
PU84	0							
PU85	1	3.00	1983.04	1.17				
		[0.13]	[1983.02,1984.11]	[0.15]				
PUC	0							
PUCD	2	2.99	1978.12	4.28	1985.06	1.99		
		[0.16]	[1974.10,1981.05]	[0.27]	[1985.02,1986.10]	[0.18]		
PUS	3	3.09	1970.03	2.21	1977.04	4.30	1983.04	1.35
		[0.20]	[1965.11,1972.02]	[0.24]	[1974.02,1977.10]	[0.26]	[1983.02,1984.03]	[0.15]
PUXF	1	2.61	1991.03	1.44				
		[0.10]	[1990.08,1993.09]	[0.19]				
PUXHS	1	2.88	1991.03	1.82				
		[0.12]	[1990.02,1994.10]	[0.22]				
PUXM	1	2.68	1991.03	1.47				
		[0.11]	[1990.09,1993.10]	[0.21]				
GMDC	2	1.29	1973.01	2.29	1983.04	1.52		
		[0.11]	[1970.11,1973.07]	[0.12]	[1981.05,1986.07]	[0.10]		
GMDCD	1	3.19	1981.05	2.36				
		[0.16]	[1977.11,1990.04]	[0.17]				
GMDCN	2	2.38	1972.12	3.94	1991.08	2.59		
		[0.24]	[1969.01,1973.09]	[0.20]	[1989.10,1996.08]	[0.29]		
GMDCS	2	0.93	1972.12	1.81	1994.01	1.05		
		[0.10]	[1970.10,1973.04]	[0.08]	[1993.07,1996.10]	[0.14]		
Miscellaneous								
PMI	1	3173.35	1984.05	2152.38				
		[137.36]	[1982.07,1989.01]	[171.64]				
PMP	2	3559.74	1970.05	5182.09	1984.09	3260.46		
		[310.61]	[1965.04,1972.09]	[263.73]	[1983.11,1988.05]	[255.68]		
PMNO	1	4731.83	1984.10	3591.16				
		[225.07]	[1980.09,1994.08]	[287.52]				
PMDEL	1	4664.22	1982.06	2124.85				
		[224.75]	[1982.02,1984.11]	[254.37]				
PMNV	1	4165.76	1982.03	2920.55				
		[185.96]	[1980.01,1987.07]	[207.81]				
PMEMP	1	3465.24	1988.01	2228.42				
		[141.39]	[1986.11,1991.10]	[216.72]				
PMCP	0							
HHSNTN	2	1680.91	1971.11	3260.14	1978.02	5318.52		
		[289.45]	[1969.06,1972.01]	[398.29]	[1974.11,1979.02]	[213.10]		
F6EDM	2	99.71	1974.06	69.53	1988.05	48.79		
		[6.24]	[1972.09,1982.04]	[5.14]	[1987.01,1993.10]	[5.63]		
FTMC6	2	87.78	1973.07	150.28	1987.02	98.15		
		[9.08]	[1971.02,1974.03]	[7.19]	[1985.12,1990.06]	[8.02]		
FTMM6	1	81.68	1987.02	46.14				
		[3.90]	[1986.09,1990.05]	[5.11]				

Results for tests for multiple structural changes in conditional volatility for individual series, when using a linear AR(p) model with constant parameters for the conditional mean. The column headed m contains the number of detected changes using the sequential procedure of Bai and Perron (1998). Columns headed σ_j, $j = 1, \ldots, 4$ contains the estimate of the conditional standard deviation between the $(j-1)$st and jth break. Figures in brackets below these estimates are standard errors. The estimated break date for the j-th change is given in the column headed $\tau_{v,j}$, with the 90% confidence interval for the break date given in brackets.

Table A.14: Tests for multiple structural changes in conditional variance - linear model with structural change for conditional mean

Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
Production								
IP	1	9.50	1984.03	5.86				
		[0.44]	[1983.04,1988.04]	[0.54]				
IPP	1	8.86	1992.06	5.43				
		[0.36]	[1991.08,1995.11]	[0.75]				
IPF	1	9.82	1984.01	7.19				
		[0.45]	[1981.04,1991.09]	[0.56]				
IPC	1	11.84	1984.01	8.53				
		[0.54]	[1981.11,1991.03]	[0.67]				
IPCD	0							
IPCN	1	8.97	1990.04	6.85				
		[0.34]	[1986.09,1997.08]	[0.61]				
IPE	1	13.46	1992.04	8.90				
		[0.54]	[1990.07,1996.07]	[1.11]				
IPI	1	10.96	1992.06	5.93				
		[0.44]	[1991.12,1994.12]	[0.92]				
IPM	1	12.50	1984.03	7.16				
		[0.55]	[1983.08,1987.05]	[0.68]				
IPMD	1	17.27	1984.01	10.10				
		[0.83]	[1983.05,1987.12]	[1.02]				
IPMND	2	11.70	1974.07	16.82	1983.05	9.87		
		[0.75]	[1969.02,1976.04]	[0.97]	[1982.10,1986.04]	[0.71]		
IPMFG	1	10.45	1984.01	6.38				
		[0.49]	[1983.03,1988.03]	[0.60]				
IPD	1	13.52	1984.01	8.55				
		[0.69]	[1982.07,1989.04]	[0.85]				
IPN	1	8.93	1991.06	5.22				
		[0.37]	[1990.12,1994.07]	[0.70]				
IPMIN	2	12.13	1974.07	17.04	1986.11	10.56		
		[0.91]	[1967.12,1977.03]	[0.98]	[1985.08,1990.09]	[0.95]		
IPUT	2	8.59	1967.02	15.63	1980.12	21.63		
		[1.59]	[1964.08,1967.07]	[1.14]	[1974.10,1983.08]	[0.97]		
IPX	1	780.81	1984.03	474.65				
		[40.83]	[1983.05,1987.12]	[41.37]				
IPXMCA	1	848.43	1984.01	511.20				
		[39.03]	[1983.03,1987.11]	[47.92]				
IPXDCA	1	1070.72	1984.01	668.29				
		[61.26]	[1982.07,1988.06]	[61.42]				
IPXNCA	1	769.25	1991.06	443.15				
		[33.38]	[1990.12,1994.02]	[55.40]				
IPXMIN	1	1337.26	1990.01	888.50				
		[67.33]	[1988.10,1995.05]	[100.29]				
IPXUT	1	1358.12	1982.11	1869.80				
		[106.61]	[1975.10,1985.08]	[99.34]				
GMPYQ	0							
GMYXPQ	0							
(Un)Employment								
LHEL	1	1527.51	1972.11	2338.94				
		[142.98]	[1968.09,1974.03]	[98.42]				
LHELX	2	57.23	1980.09	30.09	1994.01	44.69		
		[2.69]	[1980.05,1983.06]	[3.35]	[1990.05,1995.04]	[5.02]		
LHEM	1	3.67	1986.02	2.39				
		[0.16]	[1984.08,1990.02]	[0.21]				
LHNAG	1	3.42	1985.09	2.41				
		[0.14]	[1983.05,1990.12]	[0.19]				
LHUR	1	202.37	1984.07	151.77				
		[9.74]	[1981.02,1994.02]	[12.28]				
LHU680	1	751.23	1966.02	484.37				
		[50.33]	[1964.09,1969.02]	[21.34]				
LHU5	1	58.98	1975.04	42.72				
		[3.23]	[1971.12,1981.12]	[2.54]				
LHU14	1	70.35	1981.12	47.19				
		[2.94]	[1980.07,1985.12]	[3.24]				
LHU15	1	80.25	1971.03	50.33				
		[3.94]	[1970.01,1973.08]	[2.45]				
LHU26	1	109.42	1976.07	76.78				
		[4.86]	[1974.05,1980.06]	[4.08]				
LHU27	1	96.88	1980.04	57.92				
		[4.11]	[1979.06,1983.02]	[4.17]				

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
LHCH	1	198.51	1989.11	278.70				
		[9.71]	[1984.02,1992.08]	[23.14]				
LPNAG	1	2.37	1982.07	1.11				
		[0.10]	[1982.03,1984.06]	[0.12]				
LP	1	2.78	1983.07	1.17				
		[0.12]	[1983.04,1985.03]	[0.14]				
LPGD	1	4.94	1984.03	2.11				
		[0.23]	[1983.12,1986.05]	[0.29]				
LPMI	1	9.12	1989.09	5.57				
		[0.47]	[1988.06,1995.01]	[0.80]				
LPCC	1	13.20	1984.03	5.70				
		[0.64]	[1983.11,1986.06]	[0.79]				
LPEM	1	4.38	1983.09	1.80				
		[0.24]	[1983.05,1986.05]	[0.29]				
LPED	1	5.91	1983.10	2.54				
		[0.37]	[1983.04,1987.06]	[0.45]				
LPEN	1	3.54	1983.01	1.54				
		[0.16]	[1982.10,1984.11]	[0.18]				
LPSP	2	1.78	1981.10	1.27	1991.06	0.82		
		[0.08]	[1979.03,1987.11]	[0.12]	[1989.08,1995.04]	[0.13]		
LPTU	1	5.59	1979.06	3.50				
		[0.35]	[1976.01,1984.06]	[0.34]				
LPT	1	2.74	1985.03	1.54				
		[0.12]	[1984.07,1987.12]	[0.15]				
LPFR	1	1.53	1981.06	1.12				
		[0.07]	[1978.10,1987.11]	[0.07]				
LPS	1	2.17	1983.07	1.43				
		[0.09]	[1982.03,1987.10]	[0.11]				
LPGOV	1	2.72	1991.01	1.12				
		[0.14]	[1990.11,1993.07]	[0.26]				
LW	1	141.33	1984.04	90.01				
		[7.11]	[1982.07,1988.03]	[7.88]				
LPHRM	1	281.20	1984.03	162.78				
		[14.15]	[1983.07,1988.05]	[17.53]				
LPMOSA	2	126.07	1972.12	210.48	1980.12	112.99		
		[10.19]	[1969.05,1973.11]	[12.95]	[1980.05,1983.07]	[8.40]		
Wages and salaries								
LEH	2	3.37	1975.05	2.47	1989.02	1.24		
		[0.18]	[1973.03,1982.08]	[0.16]	[1988.10,1990.09]	[0.18]		
LEHCC	1	6.13	1988.04	3.96				
		[0.28]	[1986.07,1993.01]	[0.44]				
LEHM	1	3.94	1982.02	2.48				
		[0.19]	[1980.09,1986.05]	[0.21]				
LEHTU	1	5.36	1981.08	2.98				
		[0.27]	[1980.10,1984.05]	[0.26]				
LEHTT	1	3.37	1981.11	2.10				
		[0.15]	[1980.11,1984.11]	[0.15]				
LEHFR	2	5.41	1988.10	2.12	1994.01	3.39		
		[0.21]	[1988.07,1989.11]	[0.45]	[1991.03,1995.06]	[0.43]		
LEHS	1	3.79	1989.02	1.45				
		[0.15]	[1988.12,1990.04]	[0.22]				
Construction								
HSFR	1	91.07	1992.04	58.99				
		[3.69]	[1990.10,1996.04]	[7.56]				
HSNE	0							
HSMW	1	174.86	1991.02	118.03				
		[7.60]	[1989.09,1996.08]	[14.26]				
HSSOU	0							
HSWST	0							
HSBR	2	49.25	1966.01	81.51	1991.05	42.27		
		[7.15]	[1962.06,1966.08]	[3.48]	[1991.01,1993.10]	[5.98]		
HSBNE	1	138.23	1985.01	96.97				
		[6.67]	[1982.07,1991.07]	[8.45]				
HSBMW	2	105.53	1978.12	144.58	1991.02	65.95		
		[7.07]	[1970.05,1981.12]	[8.58]	[1990.10,1993.04]	[10.06]		
HSBSOU	0							
HSBWST	0							
HNS	0							
HNSNE	0							

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
HNSMW	0							
HNSSOU	1	114.15	1992.06	77.58				
		[5.57]	[1990.05,1996.06]	[8.73]				
HNSWST	1	136.49	1995.09	80.87				
		[6.91]	[1994.10,1998.11]	[15.61]				
HNR	3	526.76	1979.10	961.66	1985.02	632.43	1992.03	409.37
		[34.93]	[1977.11,1980.05]	[60.02]	[1983.12,1988.04]	[52.08]	[1990.07,1995.04]	[49.79]
HMOB	2	66.68	1980.09	43.50	1993.01	27.84		
		[2.97]	[1979.06,1985.01]	[3.84]	[1991.08,1996.07]	[5.13]		
CONTC	1	21.71	1984.02	14.14				
		[1.01]	[1982.10,1988.01]	[1.11]				
CONPC	1	22.94	1977.04	15.26				
		[1.25]	[1975.10,1981.08]	[0.92]				
CONQC	2	33.62	1974.10	48.82	1983.05	29.72		
		[2.73]	[1970.02,1976.08]	[2.91]	[1982.06,1986.05]	[2.09]		
CONDO9	1	68.73	1968.02	98.05				
		[8.24]	[1961.11,1969.11]	[4.15]				
Trade								
MSMTQ	1	12.37	1991.05	7.22				
		[0.47]	[1990.09,1993.12]	[0.89]				
MSMQ	1	17.80	1980.10	12.37				
		[0.80]	[1978.12,1985.12]	[0.83]				
MSDQ	1	23.92	1991.03	14.17				
		[0.96]	[1990.04,1994.03]	[1.81]				
MSNQ	2	12.23	1972.05	16.78	1983.01	10.11		
		[0.84]	[1966.05,1974.12]	[0.90]	[1982.03,1985.11]	[0.71]		
WTQ	1	17.69	1987.02	11.74				
		[0.74]	[1985.09,1991.06]	[1.07]				
WTDQ	2	13.51	1965.12	19.97	1993.03	12.02		
		[1.73]	[1961.09,1968.02]	[0.80]	[1992.05,1996.01]	[1.62]		
WTNQ	3	20.71	1972.09	31.98	1978.08	20.94	1994.01	12.85
		[1.36]	[1969.09,1974.02]	[1.99]	[1977.06,1981.09]	[1.23]	[1993.05,1996.09]	[1.99]
RTQ	1	14.34	1991.01	7.99				
		[0.60]	[1990.08,1993.12]	[1.12]				
RTDQ	1	32.81	1991.01	17.71				
		[1.44]	[1990.10,1994.01]	[2.68]				
RTNQ	1	10.45	1980.04	6.80				
		[0.44]	[1979.03,1983.11]	[0.45]				
Inventories								
IVMTQ	1	4.24	1991.03	2.92				
		[0.16]	[1989.08,1995.05]	[0.29]				
IVMFGQ	0							
IVMFDQ	1	6.30	1970.12	4.65				
		[0.38]	[1968.05,1979.03]	[0.23]				
IVMFNQ	1	5.71	1986.12	4.21				
		[0.23]	[1984.05,1993.08]	[0.34]				
IVWRQ	1	8.96	1984.12	6.02				
		[0.37]	[1983.05,1989.01]	[0.47]				
IVRRQ	1	8.90	1988.01	6.80				
		[0.37]	[1983.03,1996.01]	[0.57]				
IVSRQ	1	17.46	1993.03	10.02				
		[0.66]	[1992.07,1995.09]	[1.46]				
IVSRMQ	1	25.49	1993.01	16.49				
		[1.03]	[1992.03,1997.04]	[2.25]				
IVSRWQ	2	17.09	1971.08	23.63	1993.03	15.53		
		[1.39]	[1965.10,1973.10]	[1.01]	[1991.12,1997.01]	[1.81]		
IVSRRQ	2	16.37	1973.03	26.47	1987.03	16.45		
		[1.47]	[1969.01,1974.04]	[1.43]	[1986.03,1991.05]	[1.50]		
Orders								
MOCMQ	1	29.30	1992.02	19.71				
		[1.15]	[1990.11,1996.07]	[2.33]				
MDOQ	1	37.55	1991.12	27.06				
		[1.46]	[1989.12,1997.10]	[2.91]				
MSONDQ	2	46.40	1966.12	104.04	1972.11	73.35		
		[6.45]	[1965.02,1967.02]	[6.97]	[1971.03,1978.10]	[3.26]		
MO	0							
MOWU	0							
MDO	1	37.47	1991.12	27.00				
		[1.43]	[1990.01,1997.07]	[2.85]				
MDUWU	0							

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
MNO	2	10.42	1972.05	15.67	1992.09	9.16		
		[0.92]	[1967.08,1973.08]	[0.72]	[1991.12,1995.10]	[1.20]		
MNOU	0							
MU	0							
MDU	0							
MNU	0							
MPCON	3	50.28	1967.12	107.09	1979.03	76.83	1993.01	53.94
		[5.51]	[1966.10,1968.03]	[4.62]	[1977.06,1982.11]	[4.17]	[1991.03,1996.07]	[5.90]
MPCONQ	3	53.45	1967.12	102.44	1979.05	76.64	1993.01	51.78
		[5.34]	[1966.07,1968.04]	[4.45]	[1977.02,1983.12]	[4.07]	[1991.05,1995.10]	[5.72]
Consumption								
GMCQ	1	6.76	1991.03	4.09				
		[0.28]	[1990.02,1994.07]	[0.53]				
GMCDQ	2	29.01	1985.03	42.03	1991.04	21.54		
		[1.49]	[1979.01,1987.03]	[3.03]	[1991.01,1993.10]	[2.54]		
GMCNQ	1	8.45	1984.11	5.21				
		[0.36]	[1983.08,1988.02]	[0.46]				
GMCSQ	2	1.97	1971.11	4.56	1993.06	2.73		
		[0.25]	[1970.04,1972.02]	[0.19]	[1992.11,1996.06]	[0.34]		
GMCANQ	2	70.99	1979.12	103.27	1991.02	51.51		
		[4.78]	[1972.10,1982.01]	[6.38]	[1990.11,1993.12]	[7.18]		
Money and credit								
FM1	2	3.31	1979.03	6.69	1988.01	4.47		
		[0.24]	[1977.06,1979.07]	[0.35]	[1986.09,1991.11]	[0.30]		
FM2	1	1.55	1966.04	2.46				
		[0.25]	[1961.09,1967.01]	[0.11]				
FM3	1	1.56	1966.04	2.65				
		[0.24]	[1963.03,1966.12]	[0.10]				
FML	1	3.05	1987.01	3.96				
		[0.14]	[1980.11,1991.04]	[0.21]				
FM2DQ	1	2.20	1970.01	3.16				
		[0.23]	[1964.01,1971.09]	[0.13]				
FMFBA	0							
FMBASE	0							
FMRRA	0							
FMRNBA	2	11.80	1970.04	23.41	1990.04	12.03		
		[1.63]	[1967.03,1970.06]	[1.16]	[1989.12,1993.06]	[1.67]		
FMRNBC	3	10.49	1968.01	16.06	1977.07	24.38	1986.01	11.08
		[1.42]	[1963.10,1969.03]	[1.30]	[1972.08,1978.11]	[1.38]	[1985.10,1987.12]	[1.22]
FCLS	0							
FCSGV	1	11.43	1987.03	8.07				
		[0.67]	[1984.09,1992.11]	[0.68]				
FCLRE	1	2.53	1995.11	4.67				
		[0.17]	[1992.09,1996.04]	[0.38]				
FCLIN	1	3.59	1996.02	6.04				
		[0.21]	[1993.08,1997.02]	[0.52]				
FCLNBF	1	15.52	1985.09	23.83				
		[1.30]	[1982.04,1987.02]	[1.54]				
FCLNQ	1	5.75	1968.12	9.75				
		[0.69]	[1966.03,1969.09]	[0.37]				
FCLBMC	3	4445.01	1971.03	18775.36	1979.09	40397.61	1994.01	65521.13
		[2506.05]	[1970.01,1971.04]	[2872.39]	[1978.04,1980.01]	[2211.97]	[1990.07,1994.09]	[3442.82]
CCI30M	1	48.12	1974.11	107.68				
		[6.03]	[1972.10,1975.02]	[5.09]				
CCINT	2	741479.79	1979.11	2330110.29	1988.12	3346721.87		
		[317793.45]	[1978.11,1979.12]	[206447.96]	[1982.09,1990.06]	[239486.67]		
CCINV	2	320302.34	1979.06	914791.22	1985.02	1588014.92		
		[156752.67]	[1978.02,1979.07]	[121717.33]	[1982.08,1985.10]	[89064.58]		
Stock prices								
FSNCOM	0							
FSNIN	1	43.54	1991.02	28.98				
		[2.07]	[1989.04,1995.11]	[3.42]				
FSNTR	1	60.11	1991.03	42.45				
		[2.65]	[1988.10,1996.04]	[4.40]				
FSNUT	1	42.43	1976.01	31.67				
		[2.60]	[1973.05,1983.03]	[1.59]				

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
FSNFI	0							
FSPCOM	0							
FSPIN	0							
FSPCAP	0							
FSPTR	1	58.92	1991.03	43.42				
		[2.82]	[1987.12,1997.06]	[4.29]				
FSPUT	0							
FSPFI	0							
Dividends and volume								
FSDXP	0							
FSPXE	0							
FSNVV3	2	48.88	1982.11	29.95	1990.07	17.47		
		[2.76]	[1982.02,1985.10]	[2.79]	[1990.02,1992.09]	[2.91]		
Interest rates								
FYFF	3	302.10	1969.03	540.36	1979.09	998.65	1985.08	242.89
		[50.72]	[1966.02,1970.01]	[47.39]	[1975.06,1980.02]	[63.13]	[1985.07,1986.01]	[40.56]
FYCP	3	208.10	1969.05	527.81	1979.08	962.24	1985.05	327.42
		[39.52]	[1967.12,1969.07]	[37.71]	[1977.04,1980.02]	[50.34]	[1985.03,1986.06]	[34.49]
FYGM3	3	164.39	1966.06	445.61	1979.05	847.22	1985.07	246.57
		[46.06]	[1965.01,1966.09]	[32.46]	[1976.07,1979.09]	[46.99]	[1985.05,1986.04]	[30.73]
FYGM6	3	180.49	1966.06	357.78	1972.08	684.83	1982.10	288.44
		[43.90]	[1964.09,1967.06]	[44.78]	[1969.10,1972.11]	[34.88]	[1982.08,1984.09]	[26.84]
FYGT1	3	227.24	1969.05	464.35	1979.08	868.45	1985.07	315.56
		[33.95]	[1967.08,1969.10]	[32.40]	[1977.07,1980.01]	[42.64]	[1985.05,1986.08]	[27.32]
FYGT5	3	151.03	1968.04	338.04	1979.08	646.83	1985.07	313.84
		[28.26]	[1966.10,1968.07]	[24.11]	[1977.08,1979.12]	[33.37]	[1985.03,1987.03]	[21.38]
FYGT10	3	98.70	1966.09	244.38	1979.09	536.09	1986.07	265.11
		[26.14]	[1965.06,1966.11]	[18.72]	[1978.03,1979.11]	[25.82]	[1986.03,1988.03]	[18.43]
FYAAAC	3	47.66	1966.07	162.02	1979.09	402.19	1988.02	181.39
		[20.26]	[1965.06,1966.08]	[14.23]	[1978.05,1979.11]	[17.80]	[1987.11,1989.07]	[15.01]
FYBAAC	3	47.42	1966.02	133.71	1979.08	402.42	1985.07	207.36
		[19.25]	[1964.09,1966.03]	[12.92]	[1978.08,1979.09]	[19.52]	[1985.02,1987.02]	[12.50]
FWAFIT	1	441.67	1982.10	206.45				
		[27.07]	[1982.05,1984.06]	[23.61]				
FYFHA	3	59.53	1968.04	191.25	1979.08	542.64	1987.10	311.95
		[28.35]	[1967.01,1968.05]	[24.19]	[1978.04,1979.09]	[28.50]	[1986.10,1990.08]	[23.35]
Exchange rates								
EXRUS	1	12.75	1979.06	20.33				
		[2.18]	[1975.12,1980.09]	[1.01]				
EXRGER	0							
EXRSW	1	23.59	1980.01	36.11				
		[3.42]	[1976.11,1982.06]	[1.71]				
EXRJAN	0							
EXRUK	2	24.16	1984.06	35.71	1993.04	16.86		
		[2.04]	[1980.03,1985.12]	[2.11]	[1992.12,1994.12]	[2.42]		
EXRCAN	0							
Producer prices								
PWFSA	1	4.59	1991.08	3.14				
		[0.21]	[1989.10,1998.05]	[0.42]				
PWFCSA	1	5.74	1991.08	3.96				
		[0.25]	[1989.07,1997.10]	[0.50]				
PWIMSA	2	3.28	1971.08	6.67	1981.04	3.79		
		[0.38]	[1968.06,1971.10]	[0.42]	[1980.07,1985.07]	[0.30]		
PWCMSA	1	18.48	1990.05	31.52				
		[1.08]	[1986.09,1991.03]	[1.92]				
PWFXSA	0							
PW160A	1	22.25	1980.08	15.60				
		[1.63]	[1978.07,1984.11]	[0.88]				
PW150A	1	25.30	1981.03	13.56				
		[1.62]	[1980.08,1983.04]	[0.93]				
PW561	2	11.84	1973.08	29.08	1986.01	99.74		
		[4.43]	[1970.04,1973.09]	[4.63]	[1984.10,1986.02]	[4.37]		

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
PWCM	2	4.11	1968.11	7.24	1980.04	4.54		
		[0.46]	[1965.05,1969.05]	[0.40]	[1979.06,1984.11]	[0.31]		
PWXFA	0							
PSM99Q	2	11.68	1971.11	17.79	1987.12	12.41		
		[0.98]	[1968.03,1973.02]	[0.84]	[1985.08,1992.07]	[0.97]		
PSCCOM	3	14.14	1973.01	27.19	1987.05	13.09	1993.09	20.92
		[1.33]	[1970.11,1973.04]	[1.26]	[1986.12,1989.03]	[1.90]	[1990.07,1994.11]	[1.91]
PSCFOO	2	21.75	1972.08	48.64	1978.09	29.29		
		[2.17]	[1970.12,1972.10]	[3.11]	[1977.08,1981.08]	[1.67]		
PSCMAT	2	17.81	1973.01	28.52	1981.03	18.57		
		[1.34]	[1970.02,1974.01]	[1.69]	[1979.08,1984.06]	[1.12]		
PZFR	0							
PCGOLD	1	71.78	1983.04	38.19				
		[4.81]	[1982.08,1985.08]	[3.17]				
Consumer prices								
PUNEW	2	1.81	1973.01	2.97	1983.04	1.70		
		[0.15]	[1969.09,1973.11]	[0.17]	[1982.05,1985.12]	[0.13]		
PU81	1	5.58	1979.09	3.10				
		[0.32]	[1979.02,1982.09]	[0.24]				
PUH	2	3.20	1983.03	2.01	1991.06	1.33		
		[0.17]	[1982.04,1988.01]	[0.24]	[1990.06,1995.06]	[0.23]		
PU83	2	2.41	1971.02	3.34	1986.01	5.31		
		[0.28]	[1965.03,1974.01]	[0.24]	[1982.06,1987.01]	[0.25]		
PU84	0							
PU85	1	2.76	1983.04	1.21				
		[0.13]	[1983.01,1985.07]	[0.15]				
PUC	0							
PUCD	1	3.12	1988.01	1.89				
		[0.12]	[1987.03,1990.12]	[0.19]				
PUS	2	2.67	1977.04	3.88	1983.04	1.33		
		[0.14]	[1969.09,1978.03]	[0.25]	[1983.02,1984.10]	[0.15]		
PUXF	1	2.51	1991.03	1.43				
		[0.10]	[1990.07,1993.09]	[0.18]				
PUXHS	1	2.74	1991.07	1.78				
		[0.11]	[1990.01,1995.03]	[0.21]				
PUXM	1	2.59	1991.03	1.48				
		[0.10]	[1990.06,1993.10]	[0.19]				
GMDC	2	1.29	1973.01	2.16	1983.04	1.46		
		[0.11]	[1970.07,1973.10]	[0.12]	[1981.01,1986.11]	[0.09]		
GMDCD	0							
GMDCN	1	2.40	1972.12	3.27				
		[0.23]	[1963.07,1975.09]	[0.16]				
GMDCS	2	0.92	1972.12	1.77	1994.01	1.04		
		[0.09]	[1970.12,1973.04]	[0.07]	[1993.06,1996.08]	[0.13]		
Miscellaneous								
PMI	1	3159.91	1984.05	2063.91				
		[134.33]	[1983.02,1988.06]	[167.85]				
PMP	1	4426.83	1985.01	3166.29				
		[197.81]	[1982.12,1991.09]	[256.08]				
PMNO	0							
PMDEL	2	4613.09	1980.10	2713.05	1990.02	1798.74		
		[220.71]	[1980.01,1984.09]	[329.08]	[1988.10,1994.09]	[320.61]		
PMNV	1	3905.05	1988.07	2494.30				
		[153.94]	[1987.09,1992.02]	[243.23]				
PMEMP	1	3372.95	1988.01	2236.45				
		[136.57]	[1986.08,1992.02]	[209.35]				
PMCP	0							
HHSNTN	2	1689.88	1971.11	3211.19	1978.02	5321.04		
		[288.05]	[1969.03,1972.01]	[396.35]	[1975.02,1979.02]	[212.06]		
F6EDM	2	93.11	1971.10	63.96	1989.07	42.64		
		[6.26]	[1970.03,1978.03]	[3.86]	[1988.03,1993.09]	[5.04]		
FTMC6	2	84.69	1973.07	128.36	1991.02	85.44		
		[8.58]	[1969.09,1974.12]	[5.96]	[1989.11,1995.01]	[9.51]		
FTMM6	1	77.39	1988.02	33.35				
		[3.63]	[1987.12,1990.02]	[5.08]				

Results for tests for multiple structural changes in conditional volatility for individual series, when using a linear AR(p) model with single structural change for the conditional mean. The column headed m contains the number of detected changes using the sequential procedure of Bai and Perron (1998). Columns headed σ_j, $j = 1, \ldots, 4$ contains the estimate of the conditional standard deviation between the $(j-1)$st and jth break. Figures in brackets below these estimates are standard errors. The estimated break date for the j-th change is given in the column headed $\tau_{v,j}$, with the 90% confidence interval for the break date given in brackets.

Table A.15: Tests for multiple structural changes in conditional variance - nonlinear model with constant parameters for conditional mean

Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
Production								
IP	1	8.81	1984.03	5.65				
		[0.39]	[1982.11,1988.04]	[0.49]				
IPP	1	8.38	1992.06	5.64				
		[0.32]	[1991.02,1996.07]	[0.66]				
IPF	1	8.97	1992.06	6.45				
		[0.35]	[1990.03,1998.01]	[0.72]				
IPC	1	11.68	1980.09	8.78				
		[0.56]	[1977.08,1989.04]	[0.58]				
IPCD	0							
IPCN	0							
IPE	1	12.62	1992.04	9.05				
		[0.52]	[1989.05,1998.05]	[1.06]				
IPI	1	10.62	1992.06	6.16				
		[0.40]	[1991.10,1995.01]	[0.84]				
IPM	1	11.33	1986.03	6.45				
		[0.50]	[1985.07,1989.05]	[0.69]				
IPMD	1	16.86	1984.01	10.16				
		[0.74]	[1983.05,1987.07]	[0.91]				
IPMND	2	11.32	1974.09	15.27	1984.12	9.90		
		[0.72]	[1966.12,1976.11]	[0.86]	[1983.11,1989.02]	[0.71]		
IPMFG	1	9.66	1984.01	6.33				
		[0.44]	[1982.09,1988.10]	[0.54]				
IPD	1	12.86	1984.01	8.50				
		[0.62]	[1982.01,1989.02]	[0.76]				
IPN	1	8.72	1990.06	5.68				
		[0.34]	[1989.06,1994.06]	[0.62]				
IPMIN	2	12.00	1974.06	17.16	1986.11	10.60		
		[0.92]	[1968.05,1977.01]	[0.99]	[1985.10,1990.09]	[0.96]		
IPUT	1	11.86	1973.08	20.23				
		[1.25]	[1970.01,1974.03]	[0.90]				
IPX	1	717.85	1984.03	468.74				
		[37.48]	[1982.12,1988.09]	[37.97]				
IPXMCA	1	789.34	1984.01	511.05				
		[35.82]	[1982.10,1988.07]	[43.99]				
IPXDCA	1	1003.46	1984.01	674.88				
		[56.61]	[1981.12,1989.05]	[56.76]				
IPXNCA	1	752.32	1990.04	457.45				
		[32.15]	[1989.07,1993.02]	[48.78]				
IPXMIN	1	1377.53	1986.11	935.95				
		[72.51]	[1985.01,1992.07]	[87.00]				
IPXUT	1	1339.03	1982.11	1869.57				
		[110.28]	[1975.11,1985.08]	[102.76]				
GMPYQ	0							
GMYXPQ	0							
(Un)Employment								
LHEL	1	1950.37	1994.01	2995.40				
		[82.10]	[1991.02,1995.04]	[196.80]				
LHELX	2	53.46	1980.09	28.45	1994.01	50.32		
		[2.62]	[1980.05,1983.09]	[3.26]	[1991.11,1994.07]	[4.90]		
LHEM	1	3.52	1986.02	2.33				
		[0.16]	[1984.07,1990.11]	[0.22]				
LHNAG	1	3.27	1985.09	2.37				
		[0.14]	[1982.12,1992.02]	[0.19]				
LHUR	0							
LHU680	1	754.62	1966.02	481.42				
		[49.43]	[1964.10,1968.08]	[20.96]				
LHU5	1	59.53	1970.04	42.08				
		[3.75]	[1967.06,1975.12]	[2.20]				
LHU14	1	67.34	1975.07	48.74				
		[3.29]	[1973.02,1981.04]	[2.62]				
LHU15	1	75.33	1970.12	50.21				
		[3.91]	[1969.04,1974.02]	[2.40]				
LHU26	1	108.43	1970.12	79.09				
		[6.03]	[1967.12,1976.01]	[3.70]				
LHU27	1	98.03	1976.06	59.32				
		[4.52]	[1975.07,1979.06]	[3.78]				

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
LHCH	1	201.34	1989.09	299.40				
		[9.90]	[1986.07,1991.11]	[23.17]				
LPNAG	1	2.25	1981.05	1.16				
		[0.09]	[1980.11,1983.06]	[0.10]				
LP	1	2.53	1984.02	1.20				
		[0.11]	[1983.10,1986.02]	[0.13]				
LPGD	2	4.51	1984.02	2.78	1992.02	1.87		
		[0.21]	[1983.07,1988.09]	[0.37]	[1989.07,1995.05]	[0.37]		
LPMI	2	7.19	1974.11	13.24	1982.08	6.99		
		[0.68]	[1971.03,1975.07]	[0.94]	[1981.11,1985.12]	[0.63]		
LPCC	1	12.87	1984.02	6.00				
		[0.67]	[1983.10,1987.02]	[0.83]				
LPEM	1	4.15	1983.11	2.21				
		[0.22]	[1983.05,1987.08]	[0.26]				
LPED	1	5.70	1983.11	3.19				
		[0.33]	[1983.03,1988.12]	[0.40]				
LPEN	1	3.30	1982.08	1.73				
		[0.15]	[1982.03,1985.03]	[0.17]				
LPSP	1	1.71	1981.10	1.07				
		[0.07]	[1980.09,1984.12]	[0.08]				
LPTU	1	5.87	1971.12	3.66				
		[0.44]	[1969.03,1977.07]	[0.29]				
LPT	1	2.69	1985.03	1.64				
		[0.12]	[1984.05,1988.09]	[0.15]				
LPFR	1	1.55	1981.06	1.16				
		[0.07]	[1978.04,1988.04]	[0.07]				
LPS	2	1.79	1970.05	2.62	1980.03	1.46		
		[0.14]	[1964.09,1971.06]	[0.14]	[1979.09,1983.01]	[0.10]		
LPGOV	1	2.74	1991.06	1.12				
		[0.14]	[1991.04,1993.12]	[0.26]				
LW	1	138.49	1984.04	89.22				
		[7.04]	[1982.04,1988.05]	[7.81]				
LPHRM	1	271.35	1984.04	162.08				
		[13.52]	[1983.05,1988.09]	[16.82]				
LPMOSA	1	149.28	1983.09	106.50				
		[7.46]	[1980.05,1991.01]	[9.01]				
Wages and salaries								
LEH	1	2.88	1989.05	1.17				
		[0.12]	[1989.03,1990.12]	[0.19]				
LEHCC	1	6.34	1988.03	3.90				
		[0.29]	[1986.11,1992.04]	[0.45]				
LEHM	1	3.96	1982.03	2.44				
		[0.20]	[1980.11,1986.06]	[0.22]				
LEHTU	1	5.27	1984.02	2.97				
		[0.26]	[1983.07,1987.04]	[0.28]				
LEHTT	1	3.22	1986.05	1.97				
		[0.14]	[1985.08,1989.08]	[0.18]				
LEHFR	1	5.31	1988.10	2.78				
		[0.22]	[1988.04,1990.09]	[0.32]				
LEHS	1	3.91	1989.02	1.57				
		[0.15]	[1988.12,1990.04]	[0.22]				
Construction								
HSFR	1	88.56	1992.06	57.27				
		[3.68]	[1990.11,1996.08]	[7.65]				
HSNE	0							
HSMW	1	175.70	1991.02	120.81				
		[7.70]	[1989.07,1997.02]	[14.45]				
HSSOU	0							
HSWST	0							
HSBR	2	49.89	1966.01	81.89	1991.03	43.28		
		[7.28]	[1962.03,1966.09]	[3.55]	[1990.11,1993.10]	[6.03]		
HSBNE	1	137.86	1985.01	100.75				
		[6.63]	[1981.08,1992.10]	[8.40]				
HSBMW	1	121.96	1990.05	67.87				
		[5.54]	[1989.08,1993.07]	[9.70]				
HSBSOU	0							
HSBWST	2	93.01	1978.05	142.48	1987.02	82.31		
		[6.15]	[1973.03,1979.07]	[8.66]	[1986.08,1990.08]	[7.15]		
HNS	0							
HNSNE	0							

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
HNSMW	0							
HNSSOU	1	114.63	1994.06	67.82				
		[5.23]	[1993.03,1996.10]	[10.08]				
HNSWST	0							
HNR	2	521.53	1979.10	958.22	1985.02	520.85		
		[35.40]	[1977.09,1980.04]	[60.83]	[1984.06,1987.01]	[36.48]		
HMOB	3	55.09	1972.08	82.27	1980.09	43.92	1993.03	27.41
		[3.74]	[1969.02,1974.11]	[4.66]	[1980.02,1982.07]	[3.75]	[1991.12,1996.07]	[5.10]
CONTC	1	21.18	1984.02	13.77				
		[0.99]	[1982.09,1987.11]	[1.08]				
CONPC	1	22.78	1977.04	14.96				
		[1.27]	[1975.11,1981.10]	[0.94]				
CONQC	2	30.11	1971.07	46.83	1983.05	29.15		
		[3.38]	[1968.01,1972.11]	[2.51]	[1982.03,1986.06]	[2.12]		
CONDO9	0							
Trade								
MSMTQ	1	11.45	1990.09	7.69				
		[0.43]	[1989.03,1994.07]	[0.79]				
MSMQ	1	16.14	1980.10	12.70				
		[0.73]	[1976.03,1990.07]	[0.76]				
MSDQ	1	23.39	1980.10	17.74				
		[1.07]	[1976.10,1988.04]	[1.11]				
MSNQ	2	11.92	1972.05	17.21	1979.09	11.22		
		[0.82]	[1967.09,1974.03]	[1.07]	[1978.07,1983.05]	[0.64]		
WTQ	1	17.45	1987.02	11.06				
		[0.73]	[1985.12,1990.11]	[1.06]				
WTDQ	2	12.75	1965.12	19.53	1993.04	11.74		
		[1.63]	[1962.06,1967.06]	[0.76]	[1992.05,1995.11]	[1.54]		
WTNQ	3	20.22	1971.09	31.55	1978.05	20.66	1993.12	12.60
		[1.46]	[1968.04,1973.01]	[1.93]	[1977.04,1982.01]	[1.26]	[1993.05,1996.07]	[2.03]
RTQ	1	13.85	1991.03	8.33				
		[0.58]	[1990.07,1994.09]	[1.09]				
RTDQ	1	32.87	1990.05	16.25				
		[1.42]	[1990.01,1992.10]	[2.54]				
RTNQ	1	10.67	1977.07	7.11				
		[0.49]	[1976.03,1981.08]	[0.43]				
Inventories								
IVMTQ	1	4.15	1991.05	2.83				
		[0.15]	[1989.10,1995.06]	[0.30]				
IVMFGQ	1	4.41	1986.09	3.42				
		[0.18]	[1982.02,1994.06]	[0.25]				
IVMFDQ	1	6.02	1971.03	4.72				
		[0.37]	[1966.05,1983.02]	[0.23]				
IVMFNQ	1	5.83	1986.12	4.22				
		[0.24]	[1984.04,1992.09]	[0.34]				
IVWRQ	1	9.23	1985.02	6.11				
		[0.37]	[1983.08,1988.08]	[0.47]				
IVRRQ	1	8.93	1990.03	6.22				
		[0.36]	[1988.04,1995.06]	[0.64]				
IVSRQ	1	16.97	1993.03	10.54				
		[0.64]	[1992.03,1996.04]	[1.42]				
IVSRMQ	1	25.39	1993.01	16.45				
		[0.96]	[1992.03,1996.10]	[2.11]				
IVSRWQ	0							
IVSRRQ	2	16.36	1973.03	23.91	1993.08	14.12		
		[1.45]	[1967.07,1975.06]	[1.17]	[1992.12,1997.01]	[2.09]		
Orders								
MOCMQ	1	28.21	1992.01	19.04				
		[1.06]	[1990.11,1996.03]	[2.13]				
MDOQ	1	37.41	1991.12	27.47				
		[1.35]	[1989.10,1997.06]	[2.70]				
MSONDQ	2	46.12	1966.10	103.93	1972.09	73.01		
		[6.52]	[1965.03,1966.12]	[6.96]	[1970.11,1977.11]	[3.24]		
MO	0							
MOWU	0							
MDO	1	37.39	1991.12	28.10				
		[1.36]	[1989.06,1998.04]	[2.71]				
MDUWU	0							

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
MNO	1	13.71	1993.08	9.36				
		[0.56]	[1992.03,1998.11]	[1.30]				
MNOU	0							
MU	0							
MDU	0							
MNU	0							
MPCON	2	52.32	1967.12	101.79	1979.03	68.92		
		[5.66]	[1966.06,1968.04]	[4.75]	[1977.09,1982.04]	[3.50]		
MPCONQ	2	56.50	1967.12	94.98	1979.12	67.74		
		[5.47]	[1965.12,1968.09]	[4.45]	[1977.10,1983.07]	[3.44]		
Consumption								
GMCQ	1	6.73	1992.01	3.88				
		[0.26]	[1991.03,1994.07]	[0.52]				
GMCDQ	2	29.01	1985.03	43.20	1991.04	19.74		
		[1.47]	[1978.12,1986.06]	[3.00]	[1991.02,1993.08]	[2.51]		
GMCNQ	1	8.12	1984.12	5.72				
		[0.35]	[1982.08,1990.06]	[0.45]				
GMCSQ	2	2.82	1971.11	4.44	1993.06	2.80		
		[0.26]	[1968.03,1972.11]	[0.19]	[1992.09,1996.12]	[0.35]		
GMCANQ	2	76.59	1985.07	119.46	1991.06	52.48		
		[4.42]	[1978.06,1986.07]	[9.17]	[1991.04,1994.05]	[7.65]		
Money and credit								
FM1	2	3.46	1979.03	6.52	1988.01	4.44		
		[0.24]	[1977.03,1979.10]	[0.36]	[1986.07,1992.02]	[0.31]		
FM2	2	1.43	1966.04	2.81	1987.06	2.03		
		[0.25]	[1963.10,1966.07]	[0.14]	[1984.02,1994.10]	[0.18]		
FM3	1	1.53	1966.04	2.75				
		[0.24]	[1963.11,1966.10]	[0.10]				
FML	1	2.97	1983.09	3.91				
		[0.15]	[1977.11,1987.03]	[0.18]				
FM2DQ	2	2.30	1970.01	3.76	1983.04	2.79		
		[0.23]	[1966.03,1970.10]	[0.20]	[1980.09,1991.08]	[0.18]		
FMFBA	0							
FMBASE	0							
FMRRA	0							
FMRNBA	2	11.78	1970.04	24.06	1989.08	12.44		
		[1.66]	[1967.04,1970.06]	[1.21]	[1989.04,1992.11]	[1.65]		
FMRNBC	3	10.11	1968.01	15.80	1977.07	24.01	1986.12	11.97
		[1.45]	[1963.12,1969.02]	[1.33]	[1972.08,1978.12]	[1.34]	[1986.09,1989.04]	[1.30]
FCLS	1	3.70	1995.03	5.13				
		[0.20]	[1987.12,1997.03]	[0.43]				
FCSGV	0							
FCLRE	1	2.51	1995.11	4.76				
		[0.17]	[1992.11,1996.04]	[0.38]				
FCLIN	1	3.58	1996.02	6.50				
		[0.21]	[1994.03,1996.10]	[0.51]				
FCLNBF	1	16.28	1985.09	24.01				
		[1.31]	[1981.10,1987.05]	[1.55]				
FCLNQ	1	5.94	1970.09	9.86				
		[0.63]	[1967.11,1971.08]	[0.38]				
FCLBMC	3	5490.83	1971.03	17650.80	1979.09	42424.21	1994.01	64754.33
		[2563.60]	[1969.12,1971.04]	[2938.34]	[1978.08,1980.01]	[2262.76]	[1989.02,1994.09]	[3521.87]
CCI30M	1	50.35	1974.11	107.47				
		[5.99]	[1972.08,1975.01]	[5.06]				
CCINT	1	623489.93	1979.11	2796974.96				
		[325846.54]	[1979.07,1979.11]	[160330.16]				
CCINV	2	288854.99	1979.05	884802.28	1985.02	1578215.90		
		[153938.37]	[1978.03,1979.06]	[117206.67]	[1982.11,1985.08]	[86392.29]		
Stock prices								
FSNCOM	0							
FSNIN	1	43.75	1991.02	29.01				
		[2.08]	[1989.05,1995.10]	[3.44]				
FSNTR	1	61.18	1991.02	42.86				
		[2.62]	[1988.10,1995.09]	[4.32]				
FSNUT	1	44.69	1976.01	31.56				
		[2.64]	[1974.03,1981.03]	[1.62]				

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
FSNFI	0							
FSPCOM	0							
FSPIN	0							
FSPCAP	0							
FSPTR	0							
FSPUT	2	29.79	1969.11	57.22	1976.01	33.71		
		[2.66]	[1967.11,1970.04]	[3.36]	[1975.06,1978.09]	[1.71]		
FSPFI	0							
Dividends and volume								
FSDXP	0							
FSPXE	0							
FSNVV3	2	54.80	1982.04	30.95	1990.02	18.90		
		[2.95]	[1981.09,1984.04]	[2.84]	[1989.05,1992.09]	[2.92]		
Interest rates								
FYFF	3	420.00	1979.09	962.95	1985.08	312.30	1993.05	164.22
		[35.43]	[1976.07,1979.12]	[64.60]	[1985.07,1986.05]	[56.44]	[1992.10,1995.04]	[61.24]
FYCP	3	253.66	1973.05	543.36	1979.08	759.59	1989.11	242.61
		[37.35]	[1971.01,1973.07]	[54.55]	[1971.01,1982.08]	[42.60]	[1989.09,1990.11]	[48.99]
FYGM3	3	166.73	1966.08	428.64	1979.08	1174.22	1983.01	268.02
		[42.35]	[1965.01,1966.11]	[30.14]	[1978.07,1979.09]	[58.78]	[1982.11,1983.08]	[26.42]
FYGM6	3	230.97	1970.03	449.71	1979.08	811.91	1985.07	248.63
		[33.70]	[1967.11,1970.12]	[35.02]	[1976.11,1980.03]	[44.18]	[1985.05,1986.07]	[28.30]
FYGT1	3	209.43	1969.05	462.43	1979.08	869.82	1985.07	297.15
		[32.35]	[1967.12,1969.10]	[30.87]	[1977.10,1979.12]	[40.63]	[1985.05,1986.06]	[26.03]
FYGT5	3	147.59	1969.04	322.50	1979.08	606.84	1986.07	310.04
		[26.64]	[1967.08,1969.08]	[25.21]	[1977.06,1980.01]	[30.81]	[1986.03,1988.06]	[22.12]
FYGT10	3	88.29	1966.06	241.16	1979.08	527.19	1986.05	281.29
		[26.17]	[1965.05,1966.08]	[18.27]	[1978.02,1979.10]	[25.51]	[1985.12,1988.04]	[17.99]
FYAAAC	3	43.81	1966.07	145.51	1979.08	433.73	1985.07	216.24
		[20.22]	[1965.05,1966.08]	[14.26]	[1978.08,1979.09]	[21.20]	[1985.02,1987.02]	[13.58]
FYBAAC	3	35.85	1966.02	130.47	1979.08	413.86	1985.07	211.88
		[19.16]	[1965.01,1966.03]	[12.86]	[1978.10,1979.09]	[19.43]	[1985.02,1987.01]	[12.45]
FWAFIT	1	431.17	1982.10	209.66				
		[26.68]	[1982.04,1984.07]	[23.28]				
FYFHA	3	56.64	1968.03	177.55	1979.08	552.82	1987.10	321.67
		[28.59]	[1966.07,1968.04]	[24.18]	[1978.06,1979.09]	[28.59]	[1986.10,1990.07]	[23.43]
Exchange rates								
EXRUS	1	12.12	1979.06	20.60				
		[2.19]	[1976.08,1980.05]	[1.02]				
EXRGER	1	19.48	1978.09	31.81				
		[3.47]	[1975.12,1979.09]	[1.48]				
EXRSW	0							
EXRJAN	0							
EXRUK	2	25.15	1984.06	36.07	1993.04	18.07		
		[2.04]	[1979.08,1986.01]	[2.10]	[1992.12,1995.02]	[2.42]		
EXRCAN	0							
Producer prices								
PWFSA	1	4.75	1991.07	3.17				
		[0.22]	[1990.02,1997.09]	[0.43]				
PWFCSA	1	5.87	1991.08	4.04				
		[0.27]	[1989.12,1998.03]	[0.52]				
PWIMSA	2	3.23	1972.11	7.64	1980.04	4.30		
		[0.38]	[1970.02,1972.12]	[0.50]	[1979.09,1984.11]	[0.31]		
PWCMSA	3	13.56	1972.10	33.72	1978.09	15.06	1990.02	30.59
		[1.75]	[1970.12,1972.11]	[2.56]	[1978.06,1981.07]	[1.84]	[1987.10,1990.05]	[1.99]
PWFXSA	1	2.49	1973.01	4.84				
		[0.58]	[1969.12,1973.07]	[0.25]				
PW160A	1	23.09	1980.08	16.08				
		[1.65]	[1978.08,1984.03]	[0.88]				
PW150A	1	24.80	1981.03	13.80				
		[1.68]	[1980.08,1983.10]	[0.96]				
PW561	2	20.41	1973.08	37.40	1986.01	103.44		
		[4.60]	[1969.07,1974.02]	[4.81]	[1984.08,1986.03]	[4.54]		

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
PWCM	2	3.86	1968.11	7.69	1979.01	4.72		
		[0.44]	[1966.07,1969.02]	[0.41]	[1978.04,1982.09]	[0.29]		
PWXFA	1	6.32	1974.12	4.51				
		[0.51]	[1972.06,1984.01]	[0.27]				
PSM99Q	2	10.59	1971.12	21.20	1977.12	13.97		
		[0.98]	[1970.04,1972.05]	[1.38]	[1976.06,1981.03]	[0.72]		
PSCCOM	2	14.09	1972.11	25.29	1987.05	17.25		
		[1.40]	[1969.08,1973.03]	[1.32]	[1985.09,1993.05]	[1.42]		
PSCFOO	2	21.15	1972.11	49.96	1978.11	28.97		
		[2.30]	[1970.07,1972.12]	[3.36]	[1978.02,1983.01]	[1.79]		
PSCMAT	0							
PZFR	1	29.36	1979.08	20.42				
		[2.77]	[1977.10,1985.06]	[1.16]				
PCGOLD	1	71.99	1983.03	39.92				
		[5.33]	[1982.06,1986.07]	[3.49]				
Consumer prices								
PUNEW	2	1.83	1972.12	2.79	1987.01	1.56		
		[0.16]	[1967.06,1974.03]	[0.15]	[1986.05,1990.06]	[0.16]		
PU81	1	5.79	1979.08	3.22				
		[0.37]	[1979.03,1984.01]	[0.28]				
PUH	3	2.82	1978.04	4.64	1983.01	2.08	1991.09	1.39
		[0.21]	[1973.10,1978.11]	[0.31]	[1982.11,1985.05]	[0.23]	[1990.06,1995.01]	[0.24]
PU83	2	2.41	1972.06	3.33	1986.01	5.72		
		[0.27]	[1966.05,1975.02]	[0.25]	[1983.07,1986.09]	[0.25]		
PU84	0							
PU85	1	2.82	1984.03	1.14				
		[0.12]	[1984.01,1985.12]	[0.15]				
PUC	0							
PUCD	2	2.90	1978.11	4.20	1985.06	1.97		
		[0.15]	[1974.10,1980.11]	[0.26]	[1985.02,1986.11]	[0.18]		
PUS	1	3.00	1983.04	1.34				
		[0.13]	[1983.01,1985.01]	[0.15]				
PUXF	1	2.53	1991.03	1.42				
		[0.10]	[1990.08,1993.10]	[0.19]				
PUXHS	1	2.84	1991.03	1.80				
		[0.11]	[1990.01,1994.10]	[0.21]				
PUXM	1	2.63	1991.03	1.46				
		[0.11]	[1990.08,1993.11]	[0.20]				
GMDC	2	1.31	1973.01	2.22	1983.04	1.50		
		[0.11]	[1970.07,1973.08]	[0.12]	[1981.02,1987.01]	[0.09]		
GMDCD	1	3.02	1982.08	2.30				
		[0.15]	[1978.08,1993.05]	[0.17]				
GMDCN	2	2.41	1972.12	3.86	1991.08	2.53		
		[0.23]	[1968.06,1973.10]	[0.20]	[1989.11,1996.10]	[0.29]		
GMDCS	2	0.94	1972.12	1.80	1994.01	1.04		
		[0.10]	[1970.10,1973.04]	[0.07]	[1993.07,1996.09]	[0.14]		
Miscellaneous								
PMI	1	3076.31	1984.09	2139.36				
		[132.46]	[1982.08,1989.10]	[168.46]				
PMP	1	4401.29	1984.09	3203.00				
		[200.18]	[1982.06,1992.03]	[254.58]				
PMNO	1	4710.43	1984.10	3543.13				
		[219.22]	[1980.11,1993.07]	[280.04]				
PMDEL	1	4615.06	1982.06	2166.93				
		[212.57]	[1982.02,1984.09]	[240.59]				
PMNV	1	3814.85	1988.08	2685.10				
		[156.26]	[1987.01,1994.03]	[248.15]				
PMEMP	1	3353.91	1988.01	2150.47				
		[134.67]	[1986.10,1991.08]	[206.44]				
PMCP	0							
HHSNTN	2	1663.34	1971.11	3237.81	1978.02	5327.07		
		[289.19]	[1969.06,1972.01]	[397.93]	[1975.01,1979.02]	[212.90]		
F6EDM	2	99.50	1973.05	68.28	1988.05	47.39		
		[6.38]	[1971.11,1980.08]	[4.76]	[1986.12,1993.04]	[5.41]		
FTMC6	2	92.70	1973.07	134.69	1987.09	90.50		
		[8.33]	[1969.06,1975.02]	[6.46]	[1986.04,1991.04]	[7.56]		
FTMM6	1	79.94	1987.02	46.57				
		[3.67]	[1986.08,1990.05]	[4.81]				

Results for tests for multiple structural changes in conditional volatility for individual series, when using a nonlinear AR(p) model with constant parameters for the conditional mean. The column headed m contains the number of detected changes using the sequential procedure of Bai and Perron (1998). Columns headed σ_j, $j = 1, \ldots, 4$ contains the estimate of the conditional standard deviation between the $(j-1)$st and jth break. Figures in brackets below these estimates are standard errors. The estimated break date for the j-th change is given in the column headed $\tau_{v,j}$, with the 90% confidence interval for the break date given in brackets.

Table A.16: Tests for multiple structural changes in conditional variance - nonlinear model with structural change during expansions for conditional mean

Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
Production								
IP	1	8.74	1984.03	5.56				
		[0.38]	[1983.01,1988.02]	[0.47]				
IPP	1	8.27	1992.06	5.39				
		[0.31]	[1991.05,1995.12]	[0.63]				
IPF	1	8.77	1992.04	6.19				
		[0.34]	[1990.05,1997.06]	[0.69]				
IPC	1	11.44	1980.09	8.67				
		[0.55]	[1977.05,1990.01]	[0.57]				
IPCD	0							
IPCN	0							
IPE	1	12.53	1992.04	8.94				
		[0.51]	[1989.06,1998.02]	[1.05]				
IPI	1	10.43	1992.06	6.08				
		[0.40]	[1991.09,1995.01]	[0.82]				
IPM	1	10.93	1986.03	6.55				
		[0.48]	[1985.05,1989.08]	[0.66]				
IPMD	1	16.13	1984.01	9.65				
		[0.71]	[1983.04,1987.06]	[0.87]				
IPMND	1	12.45	1984.07	9.12				
		[0.55]	[1981.11,1991.05]	[0.69]				
IPMFG	1	9.58	1984.01	6.12				
		[0.43]	[1983.01,1988.05]	[0.53]				
IPD	1	12.63	1984.01	8.26				
		[0.61]	[1982.01,1989.01]	[0.75]				
IPN	1	8.56	1990.01	5.38				
		[0.34]	[1989.03,1993.07]	[0.59]				
IPMIN	2	11.76	1974.06	17.08	1986.11	10.47		
		[0.90]	[1968.09,1976.06]	[0.97]	[1985.09,1990.08]	[0.94]		
IPUT	2	8.35	1966.12	15.20	1980.12	21.36		
		[1.61]	[1964.05,1967.05]	[1.13]	[1975.02,1983.05]	[0.97]		
IPX	1	709.43	1984.03	459.85				
		[36.71]	[1983.01,1988.08]	[37.20]				
IPXMCA	1	777.78	1984.01	501.85				
		[35.05]	[1982.10,1988.06]	[43.04]				
IPXDCA	1	984.94	1984.01	654.27				
		[55.43]	[1982.03,1989.03]	[55.58]				
IPXNCA	1	750.67	1990.01	443.94				
		[31.59]	[1989.05,1992.07]	[47.05]				
IPXMIN	1	1376.48	1986.11	910.72				
		[72.29]	[1985.04,1991.12]	[86.73]				
IPXUT	1	1316.13	1982.11	1865.03				
		[106.44]	[1976.10,1985.04]	[99.19]				
GMPYQ	0							
GMYXPQ	0							
(Un)Employment								
LHEL	1	1838.31	1993.07	2719.45				
		[80.46]	[1989.11,1995.04]	[183.84]				
LHELX	2	52.99	1980.06	28.30	1994.01	47.99		
		[2.47]	[1980.02,1983.02]	[3.03]	[1991.08,1994.08]	[4.59]		
LHEM	1	3.49	1984.08	2.35				
		[0.15]	[1982.07,1989.02]	[0.19]				
LHNAG	1	3.22	1985.09	2.36				
		[0.14]	[1982.08,1992.03]	[0.19]				
LHUR	0							
LHU680	1	726.90	1966.02	477.37				
		[49.39]	[1964.07,1969.04]	[20.94]				
LHU5	1	58.66	1970.04	41.25				
		[3.63]	[1967.08,1975.08]	[2.13]				
LHU14	1	64.78	1975.07	48.90				
		[3.27]	[1972.04,1983.04]	[2.60]				
LHU15	1	71.68	1970.12	49.80				
		[3.90]	[1968.09,1974.11]	[2.39]				
LHU26	1	107.95	1970.12	77.07				
		[5.84]	[1968.08,1975.07]	[3.59]				
LHU27	1	93.46	1980.04	55.46				
		[3.92]	[1979.06,1982.11]	[3.98]				

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
LHCH	1	187.11	1989.11	276.11				
		[9.51]	[1985.03,1991.12]	[22.67]				
LPNAG	1	2.16	1983.07	1.00				
		[0.09]	[1983.02,1985.02]	[0.10]				
LP	2	2.63	1980.08	1.65	1986.07	1.12		
		[0.11]	[1979.11,1984.01]	[0.20]	[1984.03,1989.12]	[0.14]		
LPGD	1	4.49	1984.02	2.03				
		[0.20]	[1983.11,1986.03]	[0.25]				
LPMI	2	7.12	1974.11	12.95	1982.08	6.60		
		[0.64]	[1971.06,1975.08]	[0.88]	[1981.11,1985.05]	[0.59]		
LPCC	1	12.57	1984.03	5.67				
		[0.62]	[1983.11,1986.09]	[0.77]				
LPEM	1	4.14	1983.10	1.76				
		[0.21]	[1983.06,1986.01]	[0.25]				
LPED	1	5.80	1983.10	2.74				
		[0.31]	[1983.04,1986.10]	[0.37]				
LPEN	1	3.22	1982.12	1.51				
		[0.14]	[1982.08,1985.01]	[0.17]				
LPSP	1	1.66	1981.10	1.05				
		[0.07]	[1980.07,1985.04]	[0.08]				
LPTU	1	5.76	1971.10	3.62				
		[0.43]	[1969.01,1977.04]	[0.28]				
LPT	1	2.59	1985.03	1.53				
		[0.11]	[1984.06,1988.03]	[0.14]				
LPFR	1	1.49	1981.06	1.10				
		[0.07]	[1978.04,1987.10]	[0.07]				
LPS	1	2.13	1980.03	1.48				
		[0.10]	[1978.07,1985.09]	[0.10]				
LPGOV	1	2.74	1991.06	1.14				
		[0.13]	[1991.04,1993.07]	[0.24]				
LW	1	137.36	1984.04	87.27				
		[6.93]	[1982.08,1988.04]	[7.69]				
LPHRM	1	268.77	1984.03	163.13				
		[13.25]	[1983.03,1988.08]	[16.41]				
LPMOSA	1	147.63	1983.09	103.75				
		[7.27]	[1980.05,1990.01]	[8.77]				
Wages and salaries								
LEH	1	2.79	1988.10	1.20				
		[0.12]	[1988.07,1990.05]	[0.18]				
LEHCC	1	6.07	1988.04	3.96				
		[0.28]	[1986.05,1993.02]	[0.43]				
LEHM	1	3.81	1982.03	2.41				
		[0.19]	[1980.10,1987.01]	[0.21]				
LEHTU	1	5.20	1983.10	2.86				
		[0.25]	[1983.04,1986.08]	[0.27]				
LEHTT	1	3.04	1986.05	1.97				
		[0.14]	[1985.05,1990.08]	[0.18]				
LEHFR	1	5.21	1988.10	2.81				
		[0.21]	[1988.03,1990.09]	[0.31]				
LEHS	1	3.73	1989.02	1.48				
		[0.14]	[1988.12,1990.04]	[0.22]				
Construction								
HSFR	1	85.66	1994.01	54.58				
		[3.44]	[1992.10,1997.11]	[8.25]				
HSNE	0							
HSMW	1	174.03	1991.02	118.35				
		[7.60]	[1989.06,1996.10]	[14.26]				
HSSOU	0							
HSWST	0							
HSBR	2	48.54	1966.01	81.29	1991.05	42.28		
		[7.12]	[1962.07,1966.07]	[3.47]	[1991.01,1993.10]	[5.95]		
HSBNE	1	137.19	1985.01	97.32				
		[6.59]	[1982.04,1991.10]	[8.36]				
HSBMW	1	119.48	1990.10	65.51				
		[5.34]	[1989.12,1993.09]	[9.62]				
HSBSOU	0							
HSBWST	2	92.76	1978.05	139.98	1987.02	81.64		
		[6.17]	[1972.09,1979.09]	[8.69]	[1986.07,1990.10]	[7.17]		
HNS	0							
HNSNE	0							

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
HNSMW	0							
HNSSOU	1	109.28	1994.06	67.98				
		[5.14]	[1992.12,1997.04]	[9.89]				
HNSWST	1	132.03	1995.09	80.87				
		[6.79]	[1994.08,1999.04]	[15.32]				
HNR	2	500.79	1979.10	952.69	1985.02	520.71		
		[35.25]	[1977.11,1980.03]	[60.57]	[1984.06,1987.02]	[36.32]		
HMOB	2	65.40	1980.09	43.04	1993.03	27.55		
		[2.94]	[1979.04,1985.03]	[3.78]	[1991.12,1996.12]	[5.15]		
CONTC	1	21.15	1984.02	13.57				
		[0.98]	[1982.09,1987.09]	[1.08]				
CONPC	1	22.49	1977.04	14.56				
		[1.24]	[1975.12,1981.05]	[0.91]				
CONQC	2	33.19	1974.01	48.06	1983.05	29.34		
		[2.83]	[1969.03,1975.08]	[2.78]	[1982.05,1986.05]	[2.08]		
CONDO9	0							
Trade								
MSMTQ	1	11.12	1990.09	7.13				
		[0.42]	[1989.07,1994.01]	[0.77]				
MSMQ	0							
MSDQ	1	21.63	1991.12	15.44				
		[0.83]	[1990.03,1997.06]	[1.67]				
MSNQ	1	13.53	1981.05	10.18				
		[0.63]	[1978.01,1989.08]	[0.68]				
WTQ	1	17.12	1987.02	11.43				
		[0.71]	[1985.09,1991.06]	[1.03]				
WTDQ	2	12.64	1965.12	19.06	1993.03	11.97		
		[1.61]	[1962.03,1967.09]	[0.75]	[1992.02,1996.04]	[1.51]		
WTNQ	3	19.50	1971.09	32.71	1977.08	20.79	1994.01	12.63
		[1.41]	[1969.02,1972.07]	[1.98]	[1976.08,1980.08]	[1.19]	[1993.06,1996.09]	[1.98]
RTQ	1	13.89	1988.01	8.64				
		[0.58]	[1987.01,1991.09]	[0.89]				
RTDQ	1	32.19	1990.06	18.17				
		[1.37]	[1989.12,1993.07]	[2.45]				
RTNQ	1	10.20	1979.07	6.69				
		[0.45]	[1978.05,1983.06]	[0.44]				
Inventories								
IVMTQ	1	4.14	1991.05	2.86				
		[0.15]	[1989.09,1995.06]	[0.29]				
IVMFGQ	0							
IVMFDQ	0							
IVMFNQ	1	5.68	1986.12	4.23				
		[0.23]	[1984.02,1993.11]	[0.34]				
IVWRQ	1	9.00	1984.12	5.89				
		[0.35]	[1983.07,1988.04]	[0.46]				
IVRRQ	1	8.79	1988.01	6.48				
		[0.36]	[1984.04,1994.02]	[0.55]				
IVSRQ	2	14.36	1977.12	18.92	1992.10	10.47		
		[0.85]	[1970.07,1981.07]	[0.93]	[1992.03,1995.01]	[1.34]		
IVSRMQ	1	24.79	1993.01	16.48				
		[0.92]	[1992.03,1996.12]	[2.01]				
IVSRWQ	0							
IVSRRQ	2	16.49	1973.03	25.30	1987.03	16.52		
		[1.41]	[1968.09,1974.10]	[1.36]	[1985.09,1991.08]	[1.43]		
Orders								
MOCMQ	1	27.67	1992.02	19.16				
		[1.03]	[1990.10,1996.08]	[2.09]				
MDOQ	1	36.64	1991.12	26.84				
		[1.33]	[1989.08,1997.05]	[2.66]				
MSONDQ	1	53.55	1967.12	77.26				
		[5.79]	[1963.07,1969.09]	[2.88]				
MO	0							
MOWU	0							
MDO	1	36.47	1991.12	26.91				
		[1.32]	[1989.08,1997.08]	[2.65]				
MDUWU	0							

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
MNO	1	13.45	1992.09	8.64				
		[0.55]	[1991.04,1996.10]	[1.18]				
MNOU	0							
MU	0							
MDU	0							
MNU	0							
MPCON	2	51.67	1967.12	98.69	1979.03	68.86		
		[5.55]	[1966.06,1968.05]	[4.66]	[1977.05,1982.08]	[3.43]		
MPCONQ	2	54.25	1967.12	81.35	1993.03	55.03		
		[5.44]	[1964.08,1969.05]	[3.04]	[1991.09,1996.08]	[5.89]		
Consumption								
GMCQ	1	6.49	1992.01	3.88				
		[0.25]	[1991.01,1994.09]	[0.50]				
GMCDQ	2	27.75	1985.03	39.88	1991.05	21.78		
		[1.40]	[1978.07,1987.02]	[2.84]	[1991.02,1994.05]	[2.40]		
GMCNQ	2	8.47	1976.01	6.66	1993.05	4.26		
		[0.43]	[1971.06,1987.05]	[0.42]	[1991.09,1996.08]	[0.67]		
GMCSQ	2	2.22	1969.11	4.30	1993.06	2.67		
		[0.26]	[1967.12,1970.02]	[0.17]	[1992.08,1996.05]	[0.32]		
GMCANQ	2	71.73	1985.05	111.52	1991.05	50.62		
		[4.12]	[1979.06,1986.09]	[8.46]	[1991.02,1993.12]	[7.07]		
Money and credit								
FM1	2	3.33	1979.03	6.47	1988.01	4.41		
		[0.24]	[1977.03,1979.08]	[0.35]	[1986.07,1992.05]	[0.30]		
FM2	1	1.42	1966.04	2.44				
		[0.25]	[1962.09,1966.10]	[0.11]				
FM3	1	1.72	1968.12	2.68				
		[0.20]	[1965.04,1970.06]	[0.11]				
FML	1	2.88	1978.10	3.66				
		[0.16]	[1970.08,1983.06]	[0.16]				
FM2DQ	1	2.21	1970.01	3.16				
		[0.23]	[1964.03,1971.10]	[0.13]				
FMFBA	0							
FMBASE	0							
FMRRA	0							
FMRNBA	2	14.12	1977.07	25.49	1990.04	11.94		
		[1.25]	[1973.12,1978.06]	[1.46]	[1990.01,1992.10]	[1.68]		
FMRNBC	3	10.05	1968.01	15.76	1977.07	24.04	1986.03	10.93
		[1.42]	[1963.10,1969.02]	[1.30]	[1972.11,1979.01]	[1.36]	[1985.12,1988.02]	[1.22]
FCLS	1	3.53	1995.02	4.96				
		[0.20]	[1987.02,1996.12]	[0.43]				
FCSGV	1	11.30	1987.03	8.03				
		[0.67]	[1984.08,1993.02]	[0.68]				
FCLRE	1	2.46	1995.11	4.67				
		[0.16]	[1992.11,1996.04]	[0.38]				
FCLIN	1	3.55	1996.02	6.04				
		[0.21]	[1993.09,1997.01]	[0.50]				
FCLNBF	1	14.90	1985.09	23.98				
		[1.33]	[1982.11,1987.01]	[1.57]				
FCLNQ	1	5.61	1968.12	9.58				
		[0.68]	[1966.03,1969.08]	[0.37]				
FCLBMC	3	4770.61	1971.03	18849.65	1979.09	40198.02	1994.01	65521.13
		[2464.02]	[1970.03,1971.04]	[2824.21]	[1978.05,1980.02]	[2174.87]	[1990.07,1994.07]	[3385.07]
CCI30M	1	48.34	1974.11	105.40				
		[5.83]	[1972.10,1975.02]	[4.92]				
CCINT	2	741479.79	1979.11	2330110.29	1988.12	3346721.87		
		[317793.45]	[1978.11,1979.12]	[206447.96]	[1982.09,1990.06]	[239486.67]		
CCINV	2	360098.12	1979.05	857372.59	1985.02	1538771.96		
		[152043.60]	[1977.10,1979.07]	[115764.02]	[1982.11,1985.09]	[85328.92]		
Stock prices								
FSNCOM	1	39.59	1991.02	28.72				
		[1.71]	[1987.11,1998.02]	[3.20]				
FSNIN	1	43.62	1991.02	28.16				
		[2.08]	[1989.06,1995.05]	[3.43]				
FSNTR	1	60.06	1991.02	42.75				
		[2.64]	[1988.08,1996.05]	[4.37]				
FSNUT	1	41.13	1976.01	31.47				
		[2.66]	[1972.11,1986.01]	[1.63]				

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Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
FSNFI	0							
FSPCOM	0							
FSPIN	0							
FSPCAP	0							
FSPTR	1	58.80	1991.03	43.51				
		[2.82]	[1987.12,1997.08]	[4.28]				
FSPUT	0							
FSPFI	0							
Dividends and volume								
FSDXP	0							
FSPXE	0							
FSNVV3	2	56.62	1979.01	32.65	1990.02	17.37		
		[3.80]	[1978.06,1981.06]	[2.29]	[1989.10,1992.01]	[2.79]		
Interest rates								
FYFF	3	299.59	1969.03	486.13	1979.09	846.73	1985.08	242.65
		[49.31]	[1964.07,1970.10]	[46.07]	[1973.07,1980.05]	[61.38]	[1985.07,1986.07]	[39.43]
FYCP	3	182.41	1966.12	432.22	1979.08	934.58	1985.05	314.88
		[46.98]	[1964.11,1967.01]	[34.72]	[1977.08,1979.12]	[51.53]	[1985.03,1986.08]	[35.31]
FYGM3	3	178.21	1966.08	415.60	1979.08	755.23	1985.07	242.24
		[42.22]	[1964.10,1966.12]	[30.04]	[1976.04,1980.02]	[44.53]	[1985.05,1986.07]	[28.53]
FYGM6	3	194.81	1966.05	402.39	1979.08	733.02	1985.07	248.39
		[40.28]	[1964.04,1967.01]	[27.85]	[1976.11,1980.02]	[41.68]	[1985.05,1986.11]	[26.70]
FYGT1	3	226.92	1969.05	439.58	1979.08	805.84	1985.07	300.98
		[31.05]	[1967.07,1970.01]	[29.63]	[1977.10,1980.01]	[38.99]	[1985.05,1986.07]	[24.98]
FYGT5	3	156.03	1969.06	329.10	1979.08	598.27	1985.07	307.87
		[26.16]	[1967.08,1969.09]	[25.18]	[1977.03,1980.02]	[33.00]	[1985.03,1987.07]	[21.14]
FYGT10	3	100.90	1966.09	241.82	1979.08	453.69	1988.05	249.64
		[24.84]	[1965.04,1966.12]	[17.84]	[1977.08,1980.01]	[21.68]	[1987.12,1990.06]	[18.84]
FYAAAC	3	50.79	1966.08	159.76	1979.08	361.23	1988.04	182.08
		[18.88]	[1965.05,1966.09]	[13.44]	[1978.04,1979.11]	[16.46]	[1987.11,1989.11]	[14.19]
FYBAAC	3	47.02	1966.07	137.83	1979.08	394.08	1985.07	206.45
		[18.48]	[1965.05,1966.08]	[13.03]	[1978.08,1979.09]	[19.37]	[1985.01,1987.03]	[12.41]
FWAFIT	1	426.69	1982.10	201.91				
		[26.41]	[1982.04,1984.07]	[23.04]				
FYFHA	3	91.76	1973.06	216.60	1979.08	556.41	1986.03	326.70
		[21.86]	[1971.10,1973.10]	[32.25]	[1978.03,1979.09]	[31.21]	[1985.02,1989.01]	[21.60]
Exchange rates								
EXRUS	1	12.19	1979.06	20.43				
		[2.16]	[1976.07,1980.05]	[1.00]				
EXRGER	0							
EXRSW	1	23.51	1980.01	36.11				
		[3.41]	[1976.11,1982.05]	[1.71]				
EXRJAN	0							
EXRUK	2	24.58	1984.06	35.36	1993.04	16.86		
		[2.02]	[1979.09,1986.02]	[2.09]	[1992.12,1994.12]	[2.40]		
EXRCAN	0							
Producer prices								
PWFSA	1	4.60	1991.08	3.14				
		[0.21]	[1989.10,1998.01]	[0.41]				
PWFCSA	1	5.70	1991.08	3.95				
		[0.25]	[1989.06,1997.10]	[0.49]				
PWIMSA	3	3.26	1971.08	7.77	1977.07	4.47	1991.03	2.96
		[0.38]	[1968.11,1971.09]	[0.53]	[1976.10,1982.06]	[0.35]	[1990.01,1996.07]	[0.44]
PWCMSA	1	17.70	1990.05	30.36				
		[1.03]	[1987.02,1991.04]	[1.83]				
PWFXSA	0							
PW160A	0							
PW150A	1	24.56	1981.03	13.26				
		[1.60]	[1980.08,1983.05]	[0.92]				
PW561	2	17.05	1973.08	35.69	1986.01	95.24		
		[4.33]	[1970.04,1974.01]	[4.52]	[1984.07,1986.03]	[4.27]		

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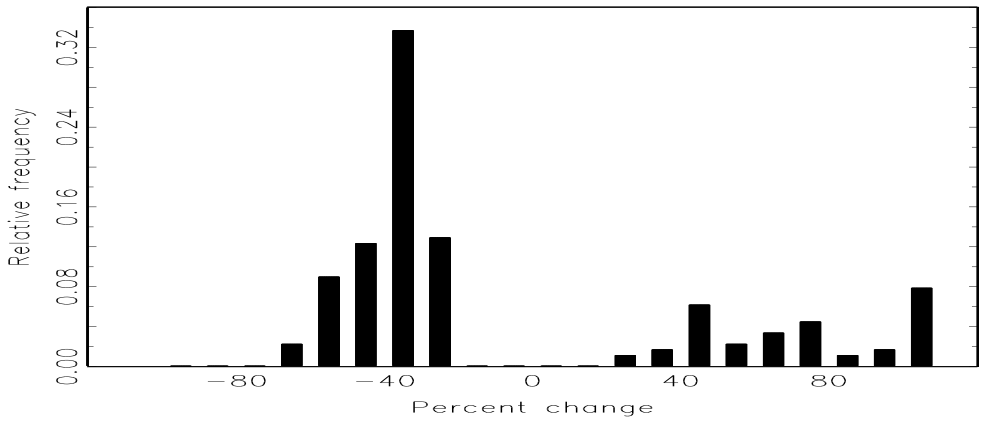
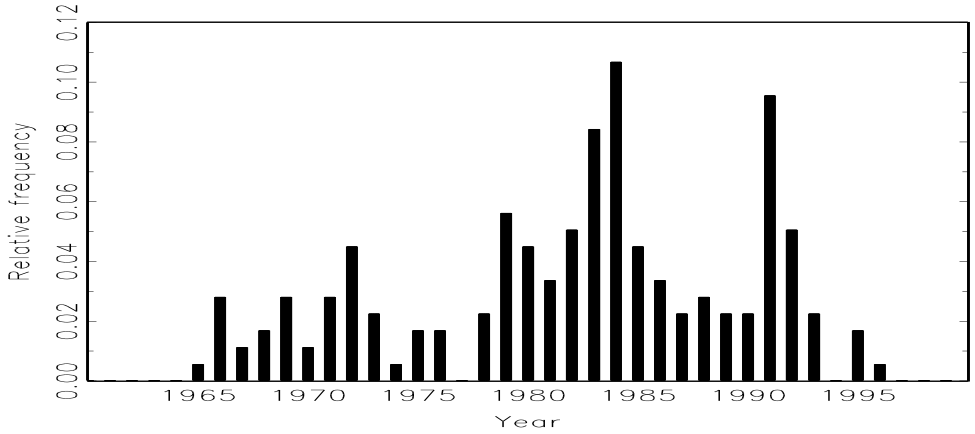
Series	m	σ_1	$\tau_{v,1}$	σ_2	$\tau_{v,2}$	σ_3	$\tau_{v,3}$	σ_4
PWCM	2	3.82	1968.09	7.18	1978.01	4.84		
		[0.42]	[1966.02,1969.02]	[0.41]	[1976.10,1983.02]	[0.27]		
PWXFA	1	5.82	1974.12	4.21				
		[0.43]	[1972.05,1982.05]	[0.23]				
PSM99Q	2	11.14	1971.12	16.99	1989.07	11.52		
		[0.97]	[1968.01,1973.06]	[0.80]	[1987.09,1993.12]	[1.04]		
PSCCOM	2	15.47	1972.11	23.29	1988.07	16.58		
		[1.29]	[1967.12,1973.10]	[1.17]	[1986.03,1994.12]	[1.37]		
PSCFOO	2	21.88	1972.08	43.55	1978.09	28.84		
		[2.08]	[1970.06,1972.12]	[2.99]	[1976.12,1983.01]	[1.60]		
PSCMAT	0							
PZFR	0							
PCGOLD	1	69.83	1983.03	37.94				
		[4.77]	[1982.06,1985.09]	[3.12]				
Consumer prices								
PUNEW	1	2.22	1991.03	1.40				
		[0.10]	[1990.04,1995.08]	[0.18]				
PU81	1	5.41	1979.02	3.12				
		[0.29]	[1978.05,1981.10]	[0.21]				
PUH	1	3.30	1982.12	1.51				
		[0.18]	[1982.09,1985.03]	[0.16]				
PU83	1	2.88	1986.01	5.28				
		[0.18]	[1983.08,1986.07]	[0.25]				
PU84	0							
PU85	2	3.00	1978.02	1.58	1993.11	0.80		
		[0.14]	[1977.08,1980.10]	[0.15]	[1993.06,1996.04]	[0.24]		
PUC	0							
PUCD	1	2.97	1988.03	1.85				
		[0.12]	[1987.02,1991.10]	[0.19]				
PUS	2	2.33	1973.07	3.38	1983.04	1.40		
		[0.16]	[1966.11,1974.08]	[0.19]	[1983.02,1985.03]	[0.14]		
PUXF	1	2.43	1991.03	1.44				
		[0.10]	[1990.05,1994.02]	[0.18]				
PUXHS	1	2.75	1991.03	1.81				
		[0.10]	[1989.08,1994.10]	[0.20]				
PUXM	1	2.59	1991.03	1.49				
		[0.10]	[1990.07,1993.10]	[0.19]				
GMDC	2	1.28	1973.01	2.13	1983.04	1.46		
		[0.11]	[1970.06,1973.10]	[0.12]	[1980.11,1987.02]	[0.09]		
GMDCD	0							
GMDCN	1	2.39	1972.12	3.25				
		[0.23]	[1963.03,1975.09]	[0.16]				
GMDCS	2	0.93	1972.12	1.78	1992.11	1.08		
		[0.09]	[1970.11,1973.04]	[0.07]	[1991.12,1995.09]	[0.12]		
Miscellaneous								
PMI	1	2961.72	1984.09	2160.68				
		[128.34]	[1981.09,1990.12]	[163.22]				
PMP	1	4365.08	1984.11	3141.87				
		[192.11]	[1982.09,1991.06]	[246.51]				
PMNO	1	4596.37	1984.10	3555.21				
		[217.84]	[1979.07,1995.05]	[278.27]				
PMDEL	1	4463.61	1982.06	2173.53				
		[206.96]	[1982.02,1984.11]	[234.23]				
PMNV	1	3738.15	1989.01	2494.91				
		[145.53]	[1987.11,1993.02]	[237.20]				
PMEMP	1	3244.98	1988.01	2178.46				
		[127.12]	[1986.06,1991.12]	[194.86]				
PMCP	0							
HHSNTN	2	1676.89	1971.11	3210.43	1978.02	5326.30		
		[288.20]	[1969.03,1972.01]	[396.56]	[1975.02,1979.02]	[212.17]		
F6EDM	2	95.22	1971.10	63.82	1989.08	41.20		
		[6.06]	[1970.06,1976.12]	[3.73]	[1988.05,1993.01]	[4.90]		
FTMC6	1	109.73	1990.10	78.86				
		[4.48]	[1988.03,1995.08]	[8.44]				
FTMM6	1	74.72	1988.02	32.29				
		[3.41]	[1987.12,1990.01]	[4.77]				

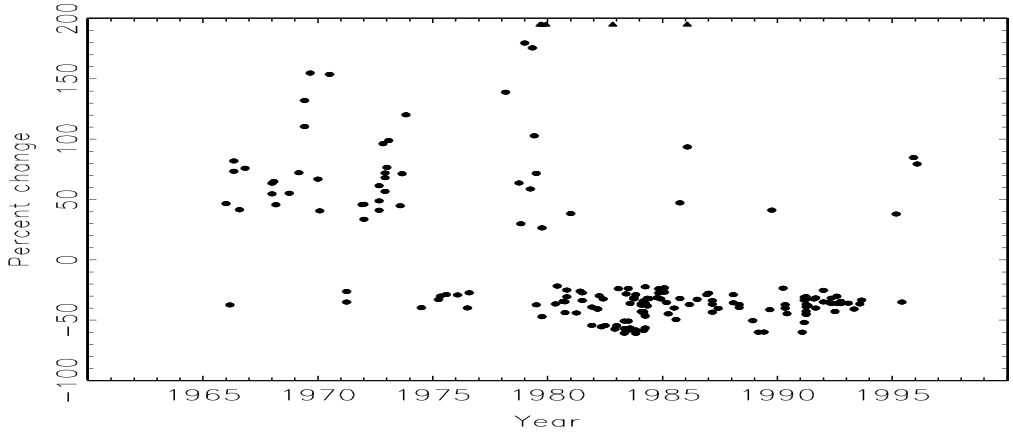
Results for tests for multiple structural changes in conditional volatility for individual series, when using a nonlinear AR(p) model with structural change during expansions for the conditional mean. The column headed m contains the number of detected changes using the sequential procedure of Bai and Perron (1998). Columns headed σ_j, $j = 1, \ldots, 4$ contains the estimate of the conditional standard deviation between the $(j-1)$st and jth break. Figures in brackets below these estimates are standard errors. The estimated break date for the j-th change is given in the column headed $\tau_{v,j}$, with the 90% confidence interval for the break date given in brackets.



(a) Distribution of percent change in conditional standard deviation

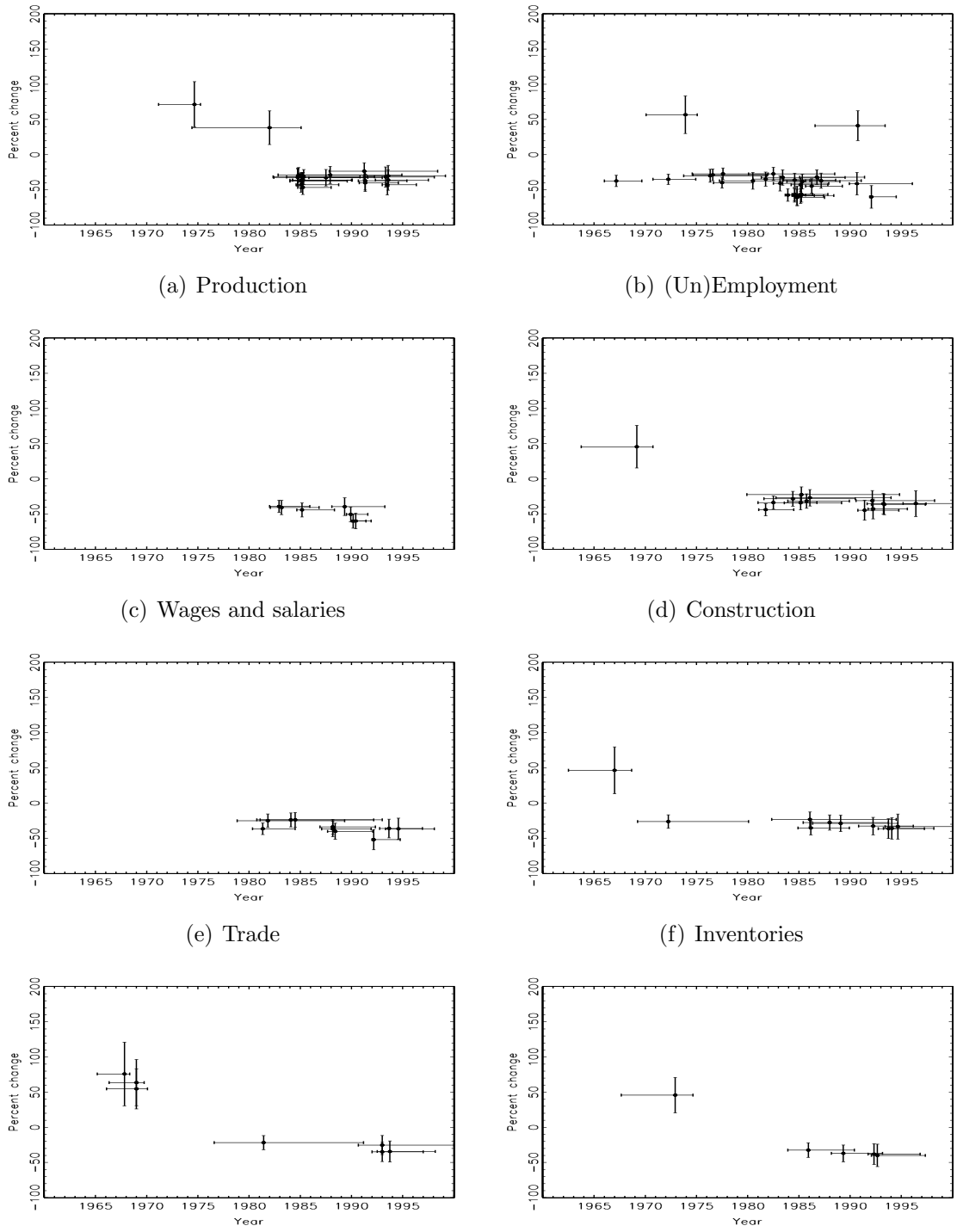


(b) Distribution of break dates



(c) Scatter of break dates against percent change in standard deviation

Figure 1: Characteristics of conditional volatility breaks for series for which the SupW statistic is significant at the 5% level, when using a linear AR model with constant parameters for the conditional mean. In panel (a), series for which the standard deviation more than doubles are collected in the right-most category. In panel (c), series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

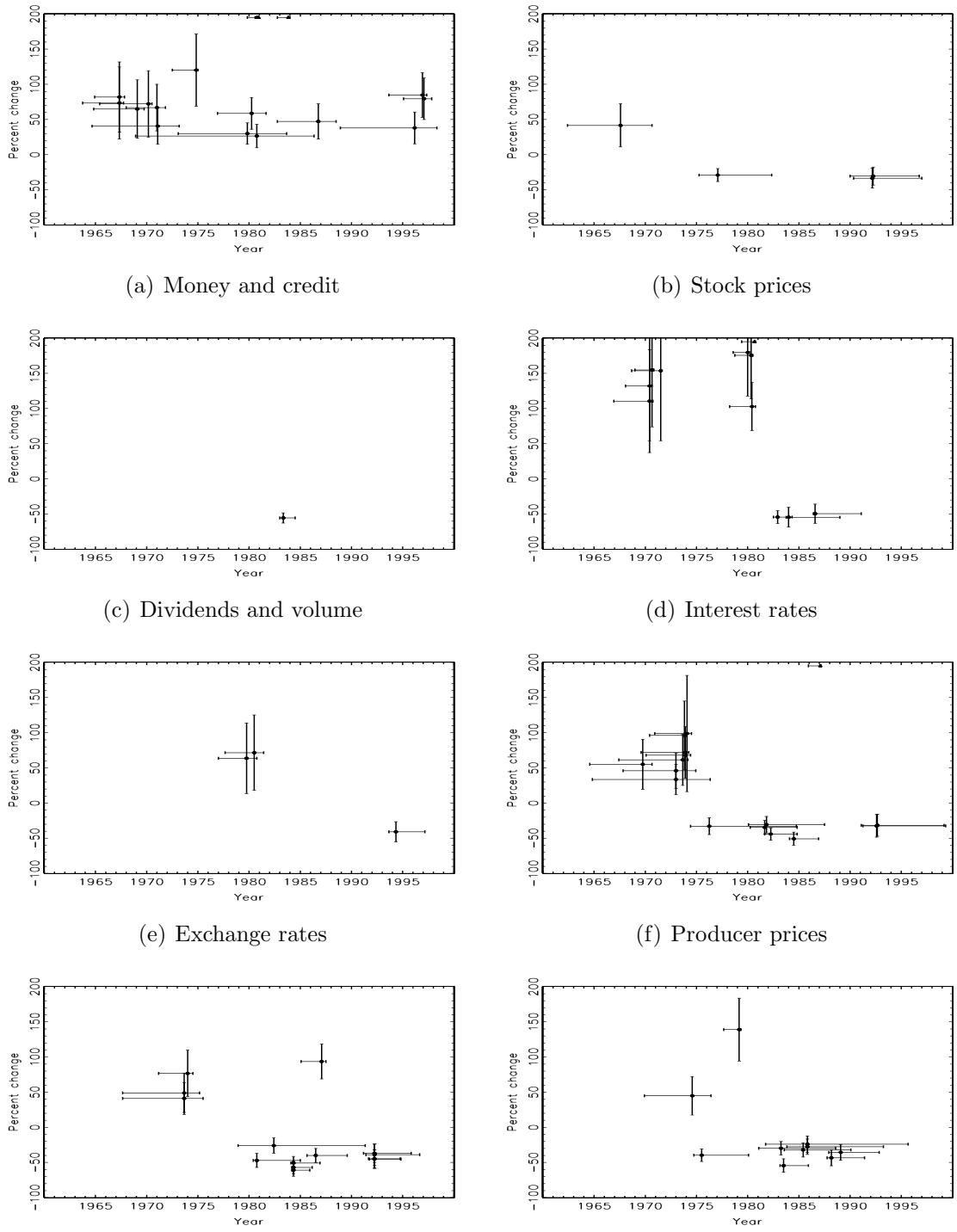
(e) Trade

(f) Inventories

(g) Orders

(h) Consumption

Figure 2: Scatter plots of volatility break dates against percent change in conditional standard deviation for series for which the SupW statistic is significant at the 5% level, when using a linear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Money and credit

(b) Stock prices

(c) Dividends and volume

(d) Interest rates

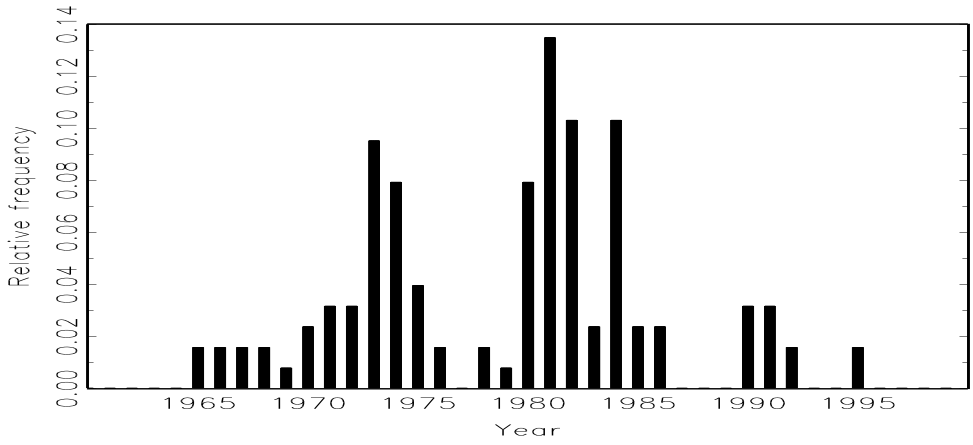
(e) Exchange rates

(f) Producer prices

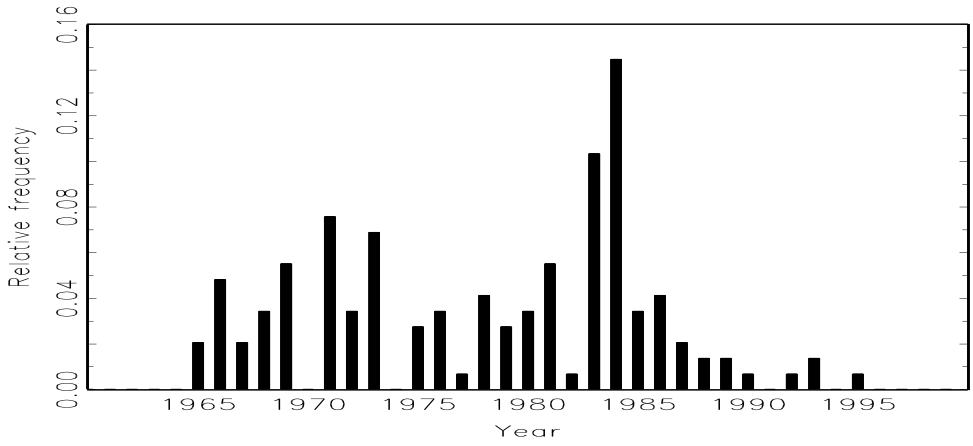
(g) Consumer prices

(h) Miscellaneous

Figure 3: Scatter plots of volatility break dates against percent change in conditional standard deviation for series for which the SupW statistic is significant at the 5% level, when using a linear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.

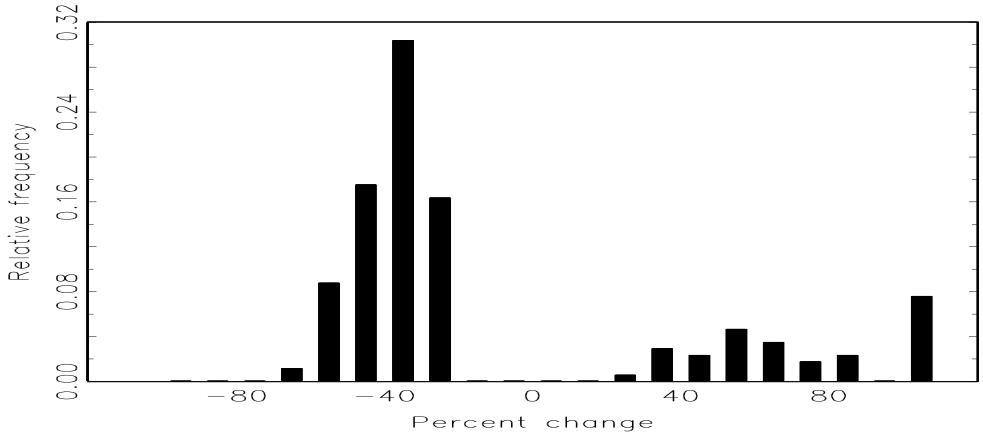


(a) Distribution of break dates in conditional mean - linear AR model

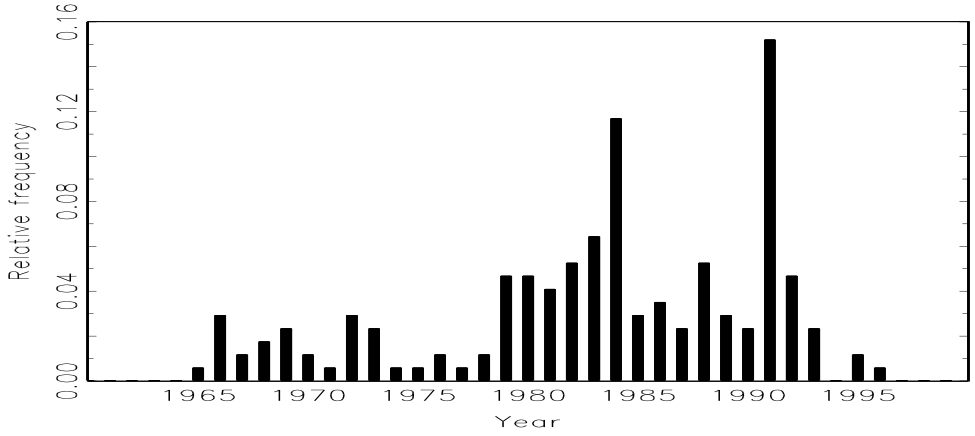


(b) Distribution of break dates in conditional mean - nonlinear AR model

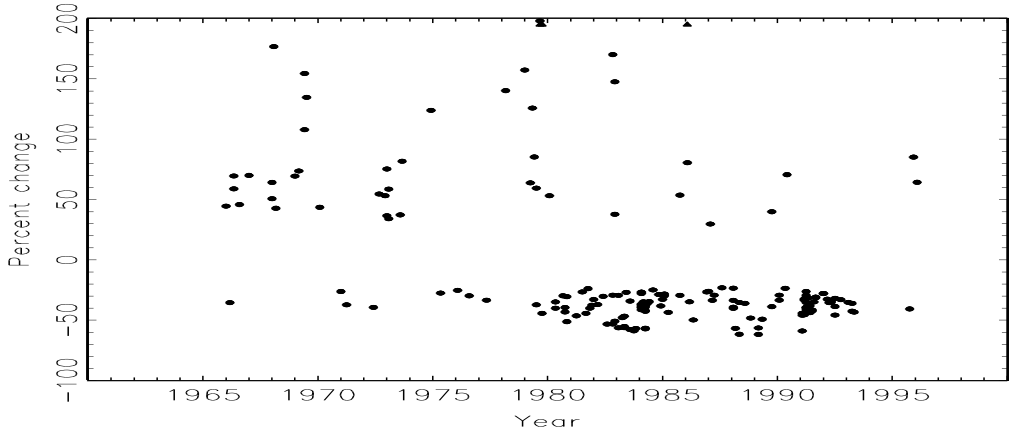
Figure 4: Break dates for series for which the SupW statistic for a structural change in the parameters in the linear model (**??**) or in the parameters during expansions in the nonlinear model (**??**) for the conditional mean is significant at 5% level.



(a) Distribution of percent change in conditional standard deviation

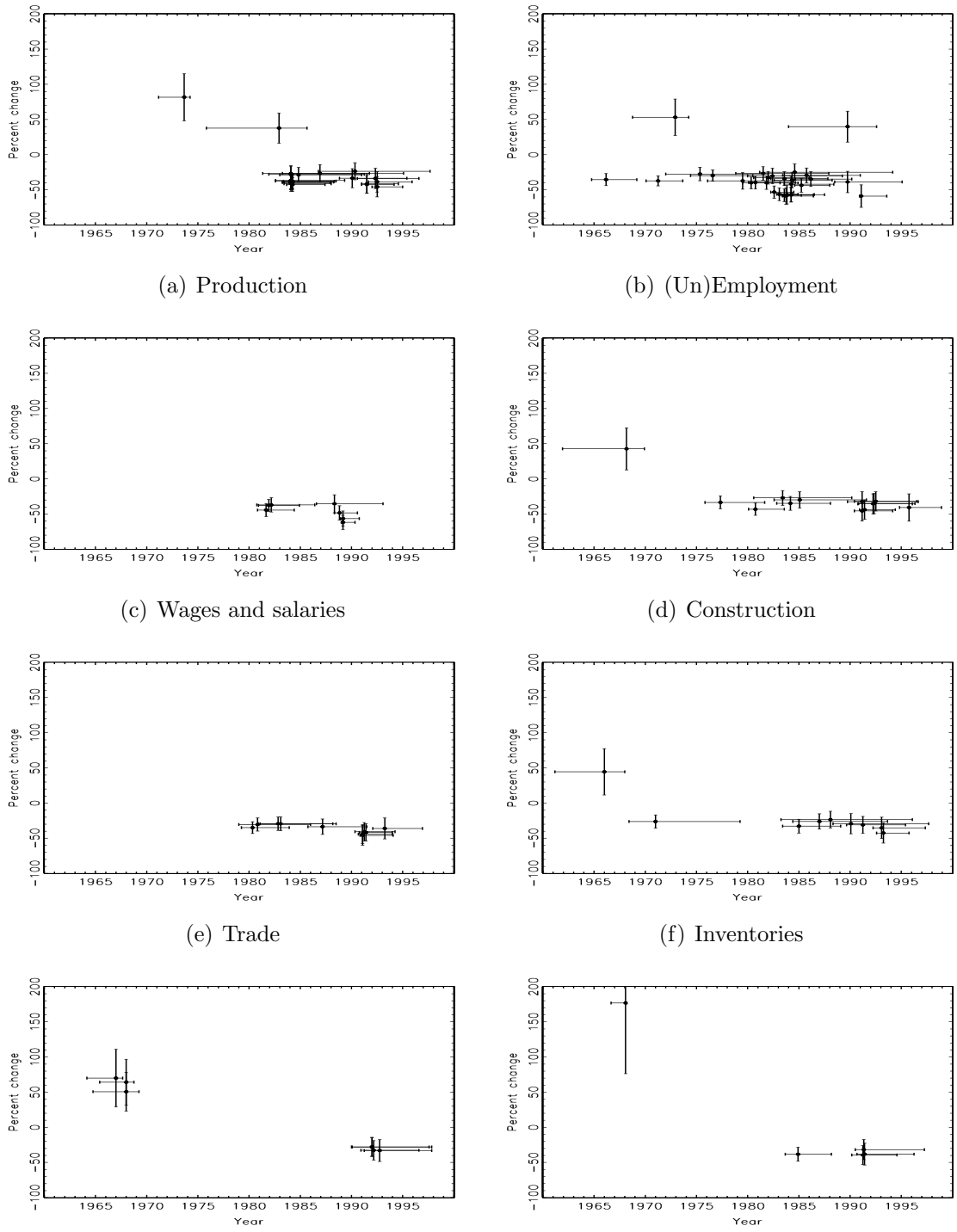


(b) Distribution of break dates



(c) Scatter of break dates against percent change in standard deviation

Figure 5: Characteristics of conditional volatility breaks for series for which the SupW statistic is significant at the 5% level, when using a linear AR model with structural change for the conditional mean. In panel (a), series for which the standard deviation more than doubles are collected in the right-most category. In panel (c), series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

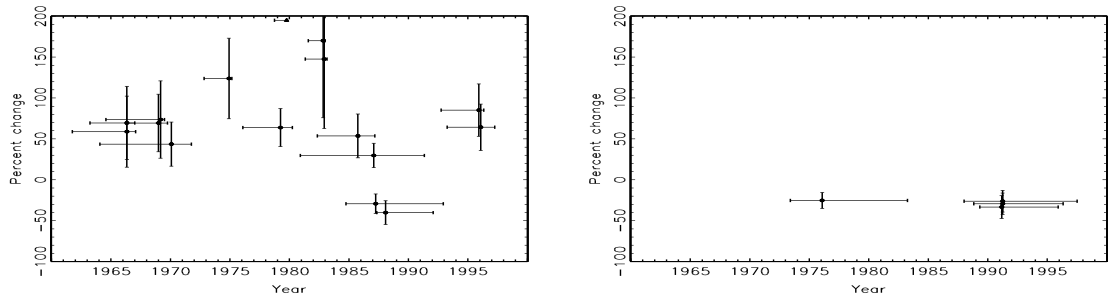
(e) Trade

(f) Inventories

(g) Orders

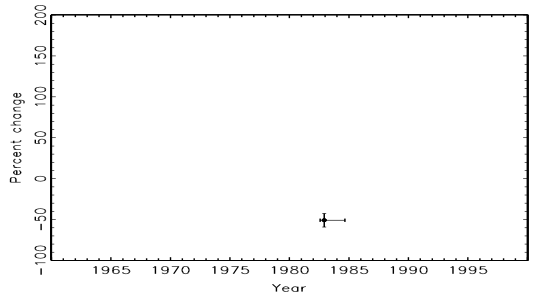
(h) Consumption

Figure 6: Scatter plots of volatility break dates against percent change in conditional standard deviation for series for which the SupW statistic is significant at the 5% level, when using a linear AR model with structural change for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.

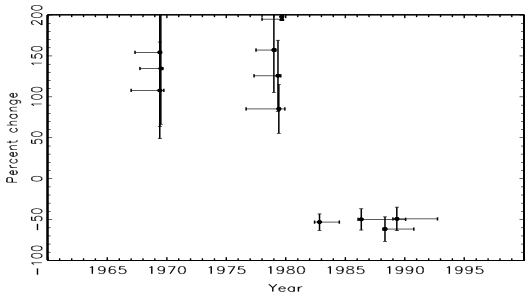


(a) Money and credit

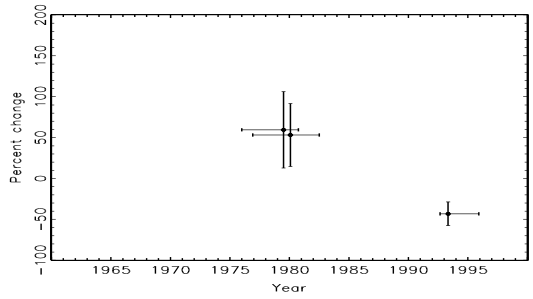
(b) Stock prices



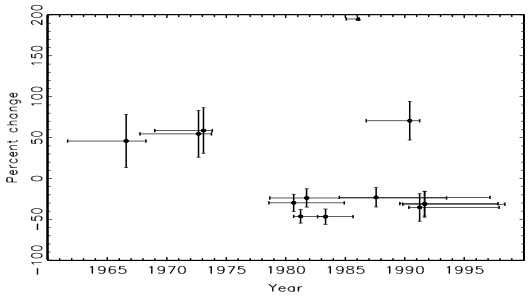
(c) Dividends and volume



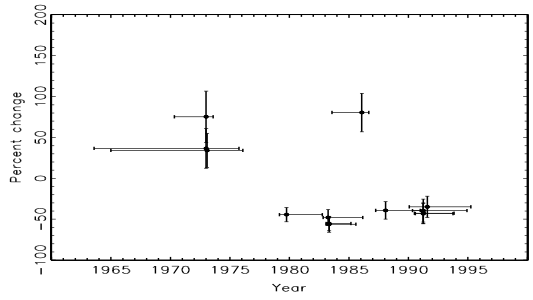
(d) Interest rates



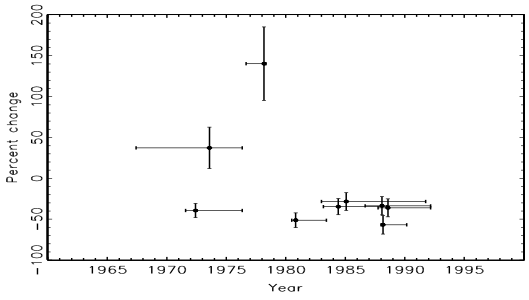
(e) Exchange rates



(f) Producer prices

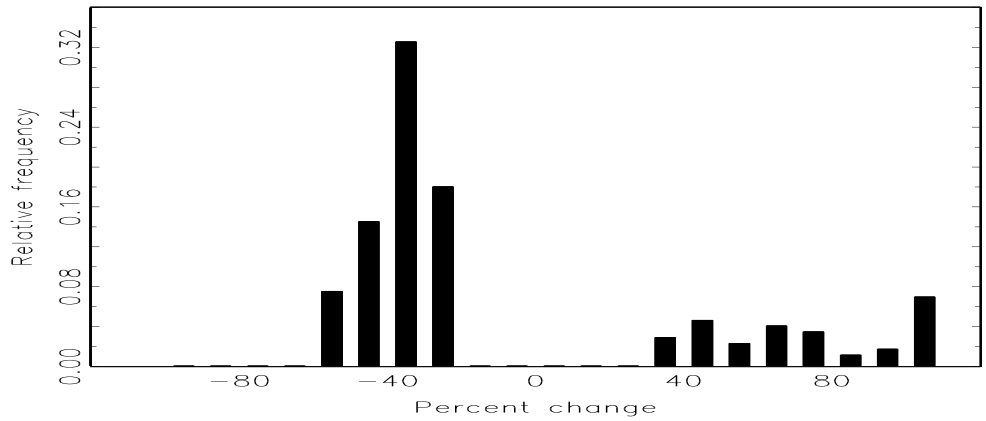


(g) Consumer prices

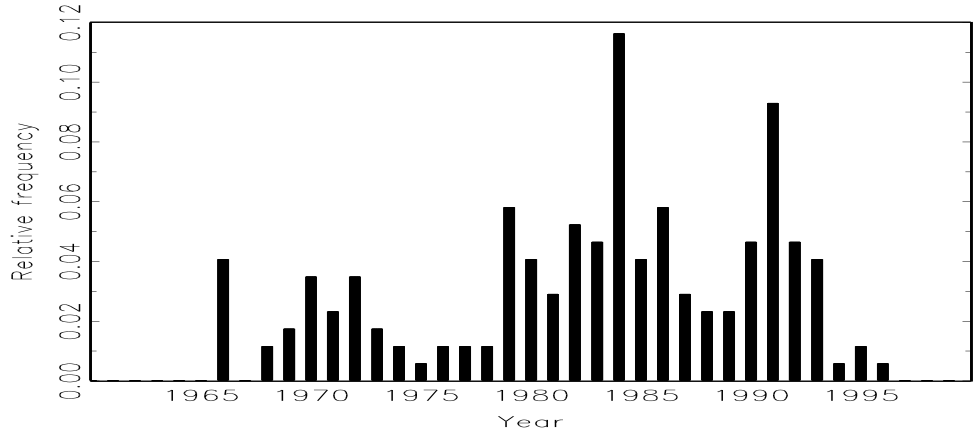


(h) Miscellaneous

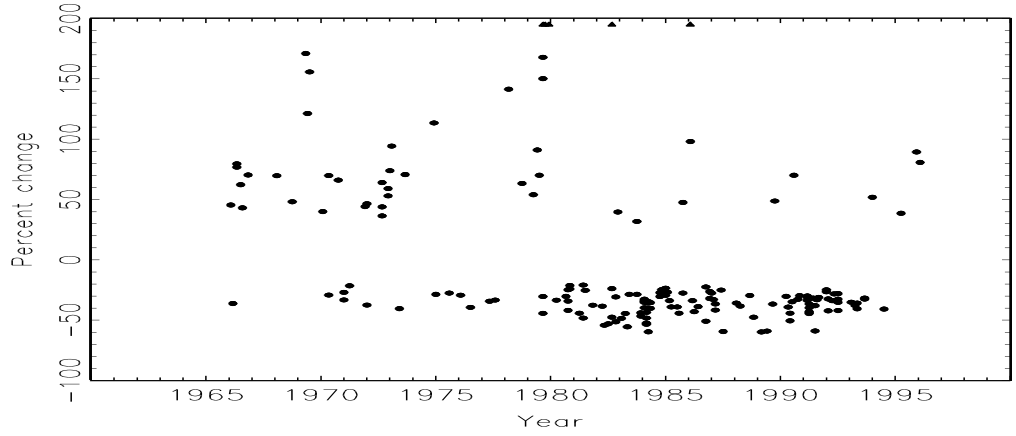
Figure 7: Scatter plots of volatility break dates against percent change in conditional standard deviation for series for which the SupW statistic is significant at the 5% level, when using a linear AR model with structural change for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Distribution of percent change in conditional standard deviation

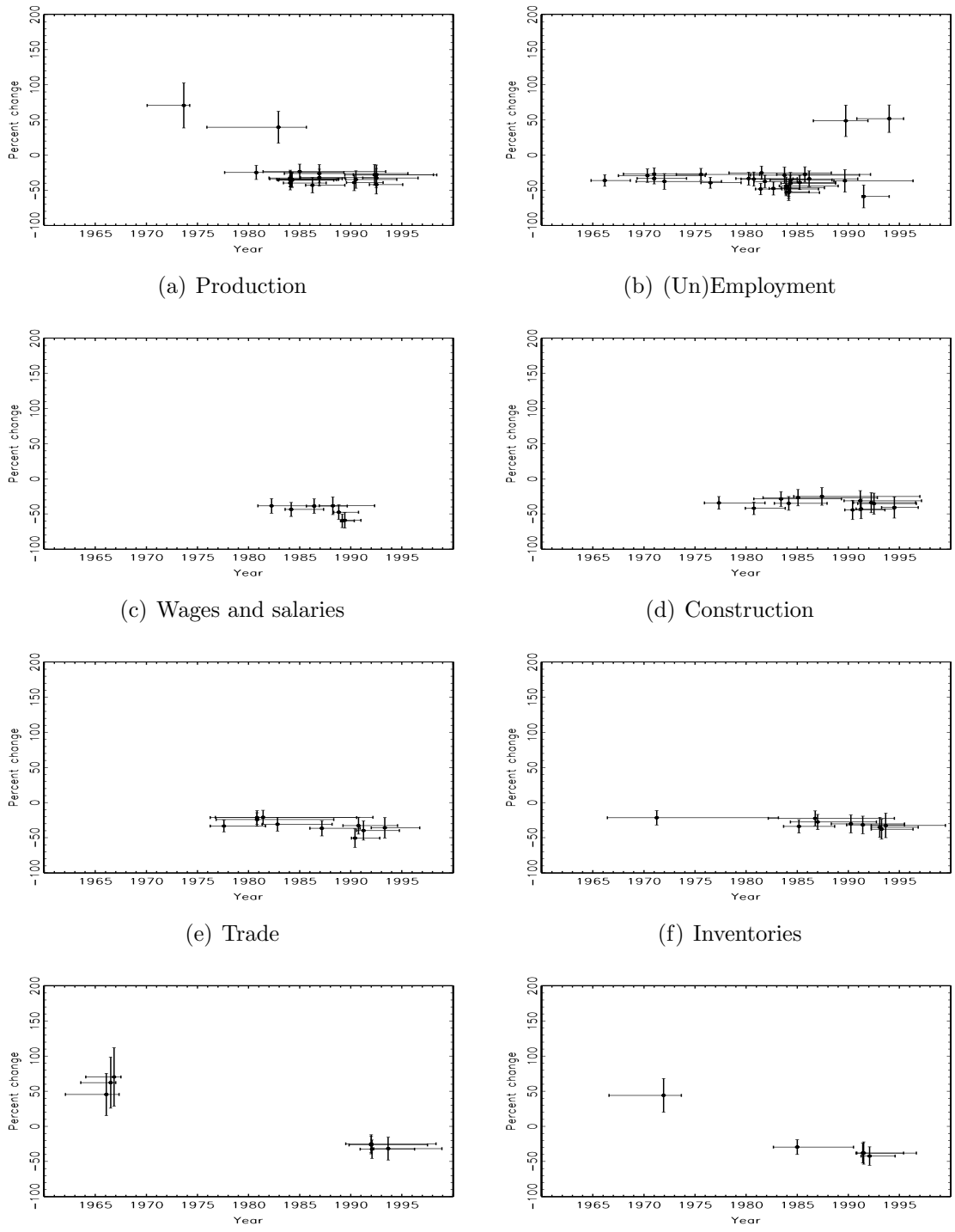


(b) Distribution of break dates



(c) Scatter of break dates against percent change in standard deviation

Figure 8: Characteristics of conditional volatility breaks for series for which the SupW statistic is significant at the 5% level, when using a nonlinear AR model with constant parameters for the conditional mean. In panel (a), series for which the standard deviation more than doubles are collected in the right-most category. In panel (c), series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

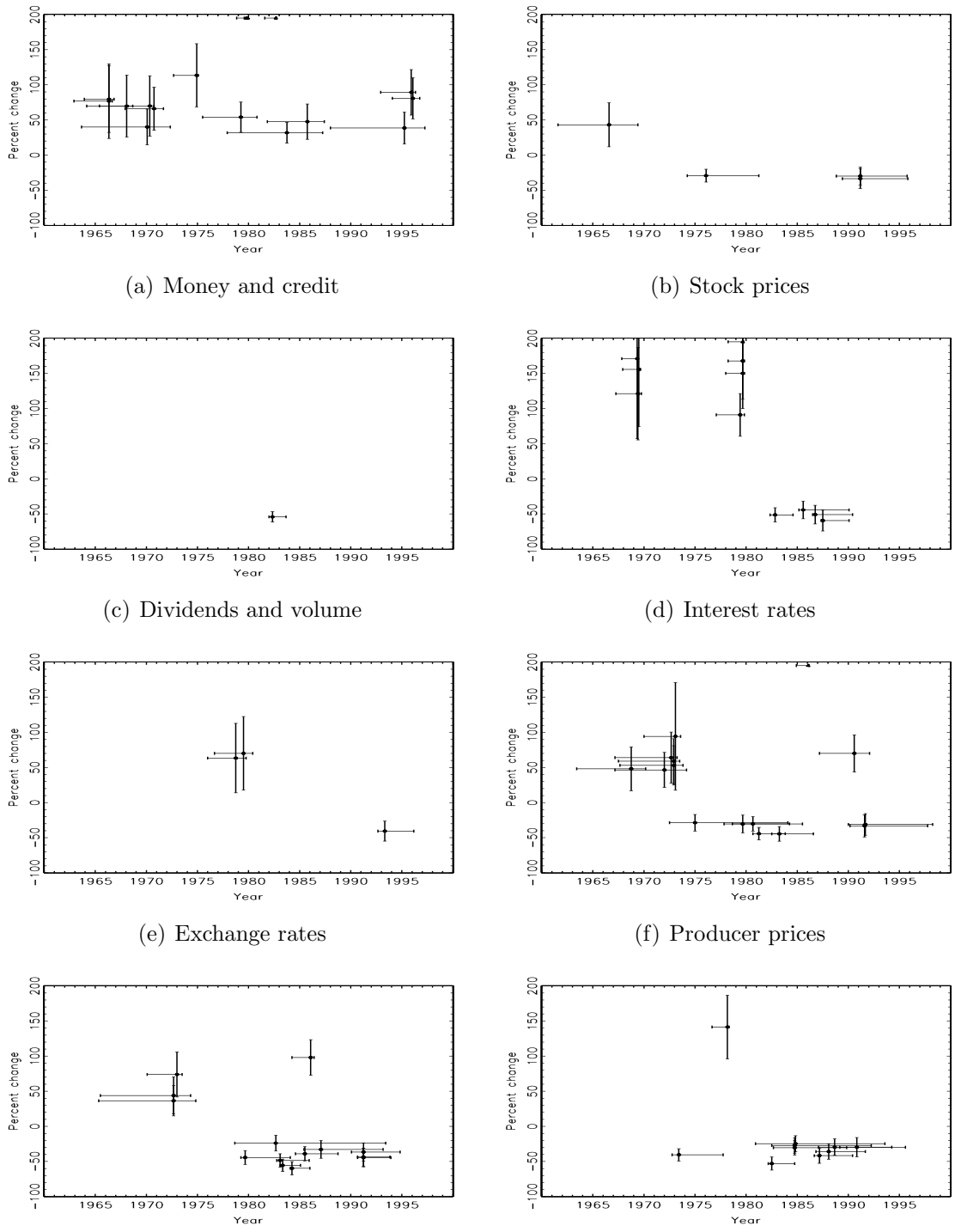
(e) Trade

(f) Inventories

(g) Orders

(h) Consumption

Figure 9: Scatter plots of volatility break dates against percent change in conditional standard deviation for series for which the SupW statistic is significant at the 5% level, when using a nonlinear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Money and credit

(b) Stock prices

(c) Dividends and volume

(d) Interest rates

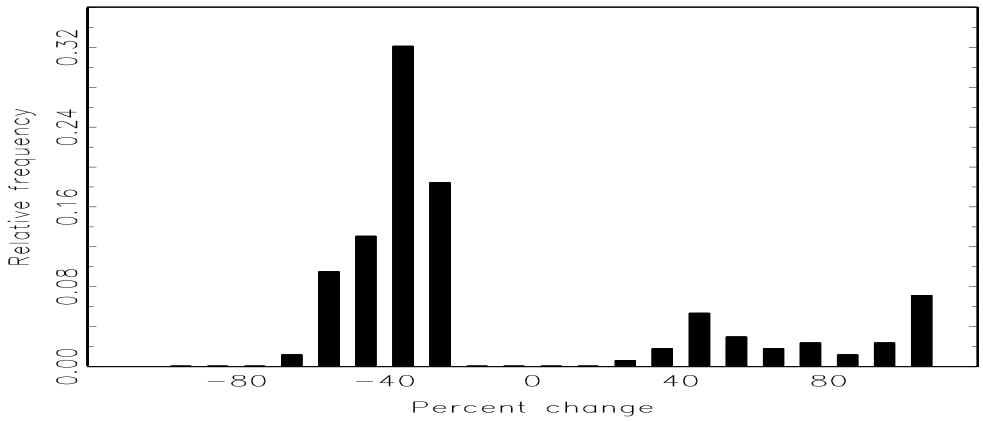
(e) Exchange rates

(f) Producer prices

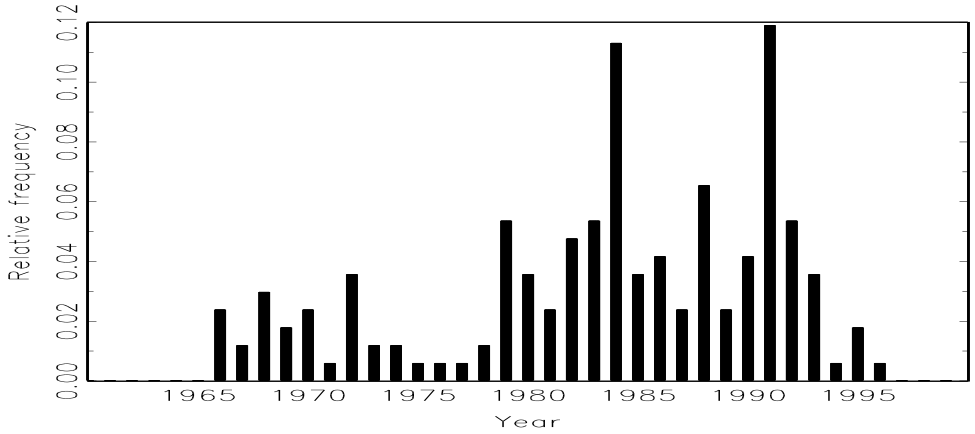
(g) Consumer prices

(h) Miscellaneous

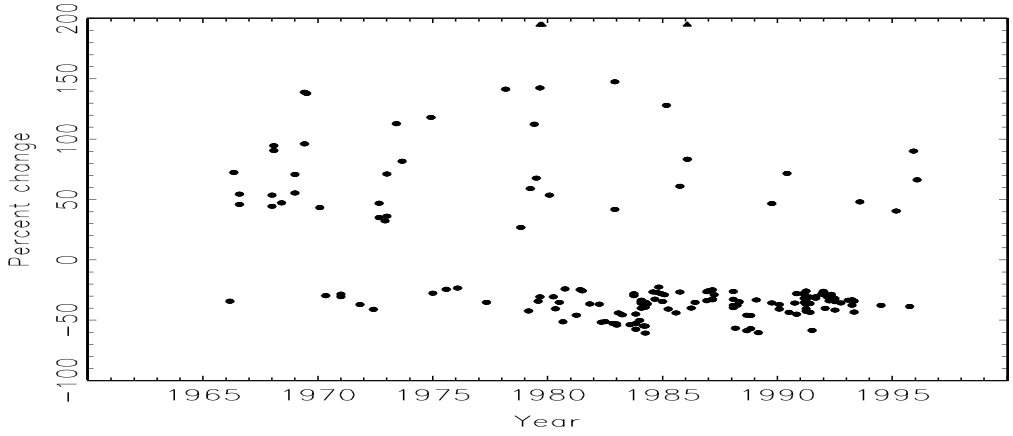
Figure 10: Scatter plots of volatility break dates against percent change in conditional standard deviation for series for which the SupW statistic is significant at the 5% level, when using a nonlinear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Distribution of percent change in conditional standard deviation

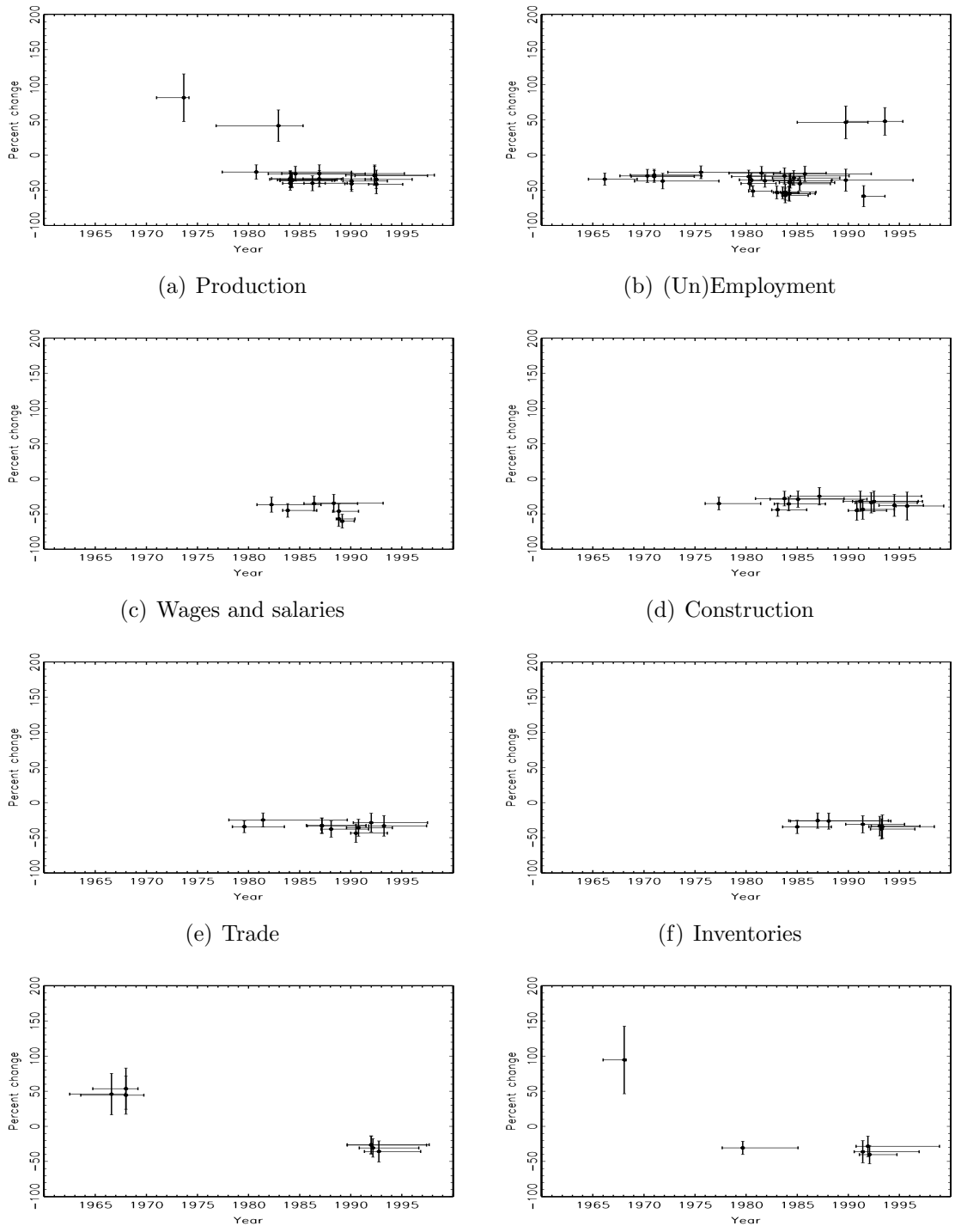


(b) Distribution of break dates



(c) Scatter of break dates against percent change in standard deviation

Figure 11: Characteristics of conditional volatility breaks for series for which the SupW statistic is significant at the 5% level, when using a nonlinear AR model with structural change during expansions for the conditional mean. In panel (a), series for which the standard deviation more than doubles are collected in the right-most category. In panel (c), series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

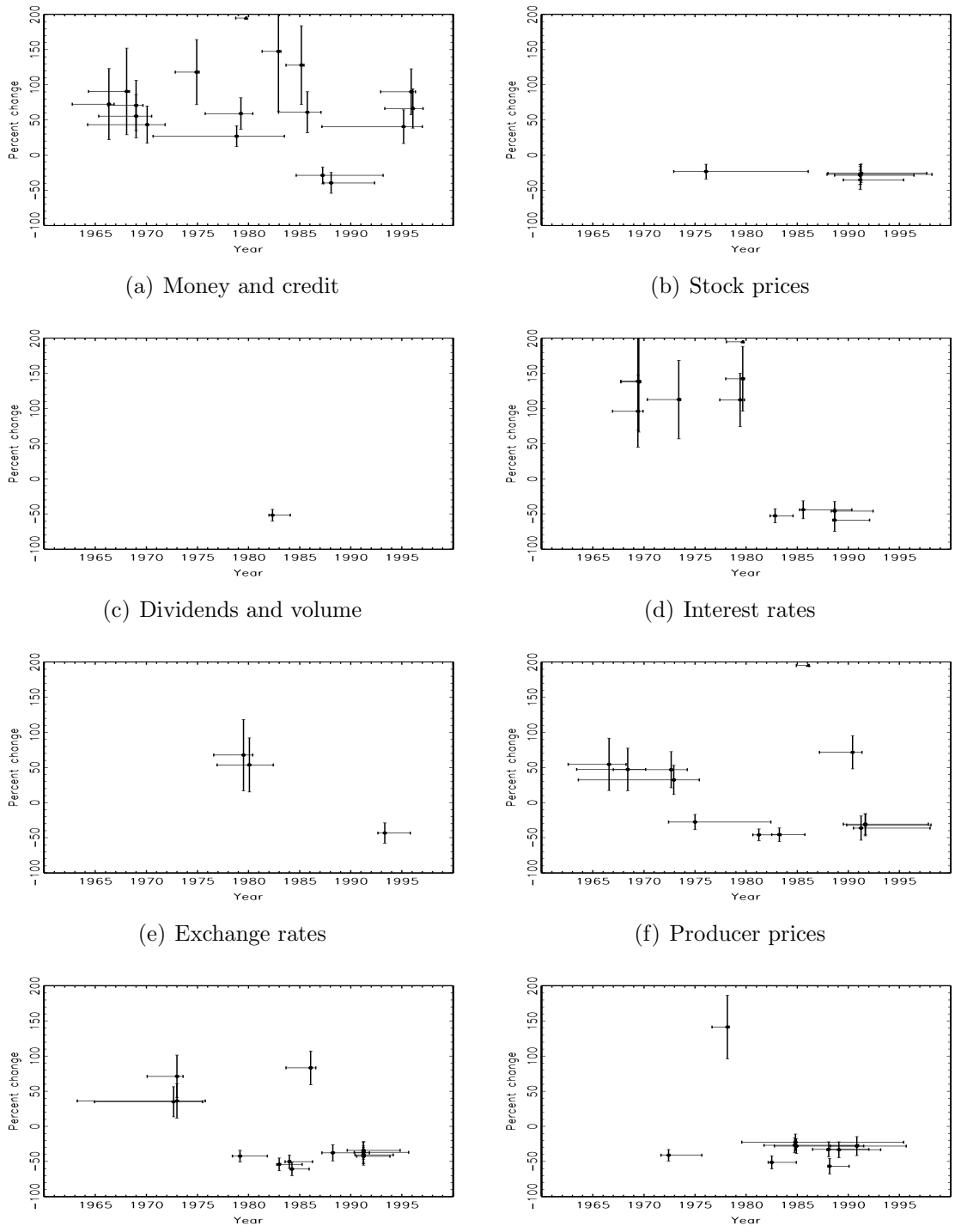
(e) Trade

(f) Inventories

(g) Orders

(h) Consumption

Figure 12: Scatter plots of volatility break dates against percent change in conditional standard deviation for series for which the SupW statistic is significant at the 5% level, when using a nonlinear AR model with structural change during expansions for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Money and credit

(b) Stock prices

(c) Dividends and volume

(d) Interest rates

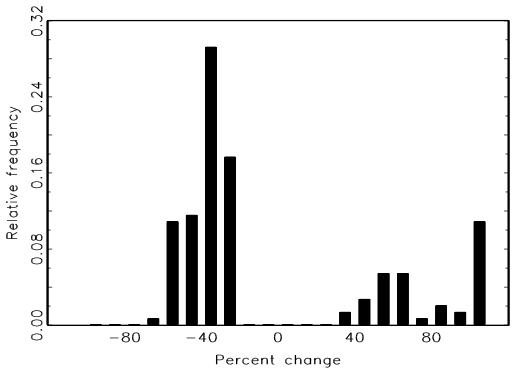
(e) Exchange rates

(f) Producer prices

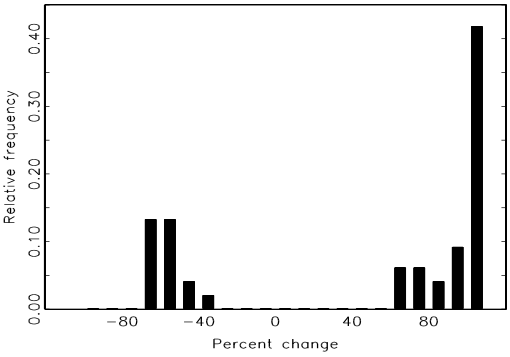
(g) Consumer prices

(h) Miscellaneous

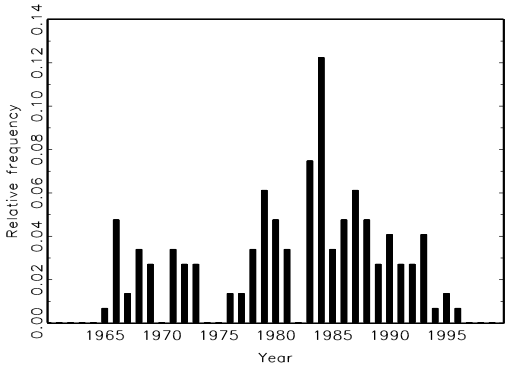
Figure 13: Scatter plots of volatility break dates against percent change in conditional standard deviation for series for which the SupW statistic is significant at the 5% level, when using a nonlinear AR model with structural change during expansions for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



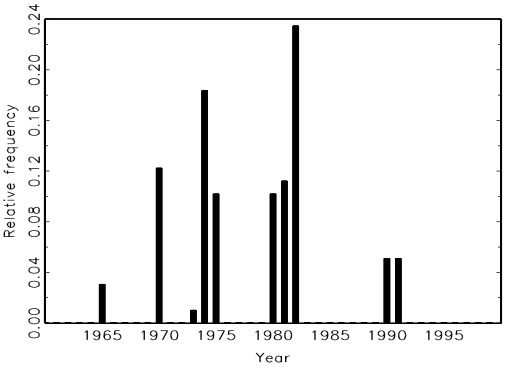
(a) Distribution of percent change in standard deviation during expansions



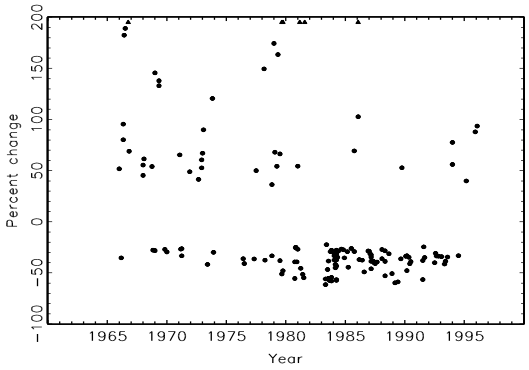
(b) Distribution of percent change in standard deviation during recessions



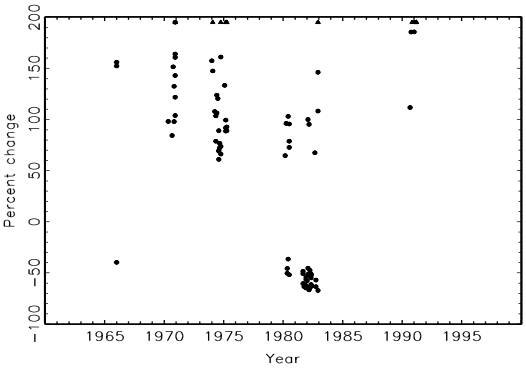
(c) Distribution of break dates for standard deviation during expansions



(d) Distribution of break dates for standard deviation during recessions

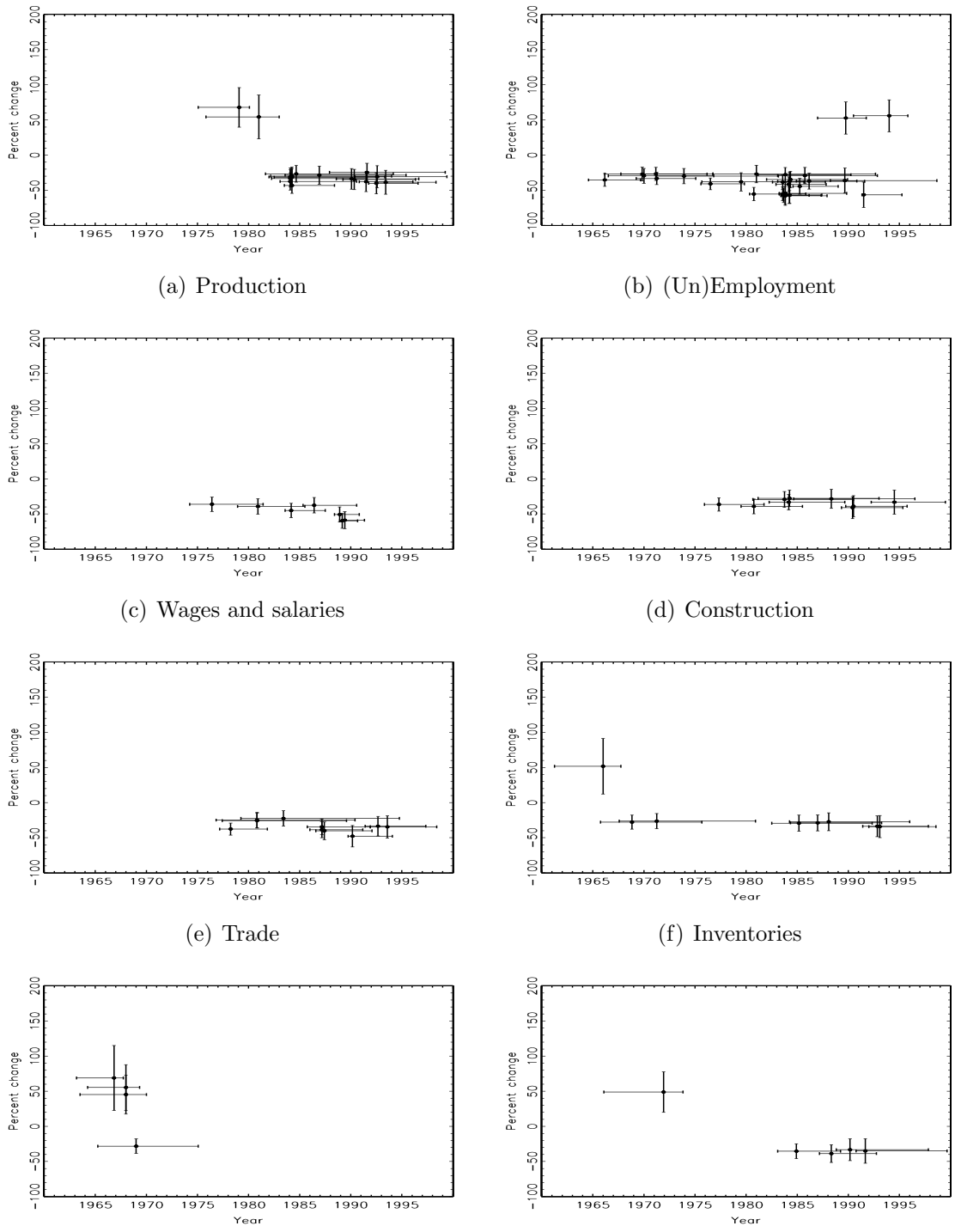


(e) Scatter of break dates against percent change in standard deviation during expansions



(f) Scatter of break dates against percent change in standard deviation during recessions

Figure 14: Characteristics of conditional volatility breaks for series for which the SupW statistics for a structural change in the conditional volatility in recessions and expansions separately are significant at the 5% level, when using a linear AR model with constant parameters for the conditional mean. In panels (e) and (f), series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

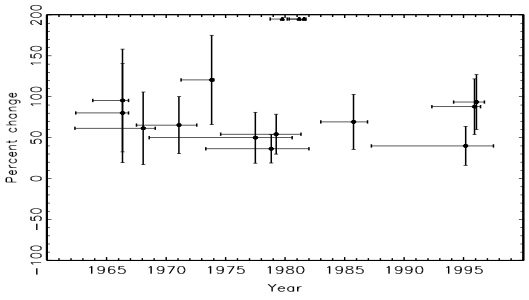
(e) Trade

(f) Inventories

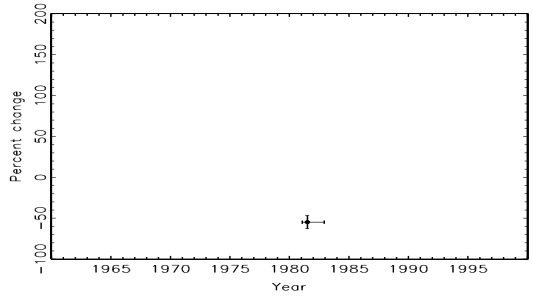
(g) Orders

(h) Consumption

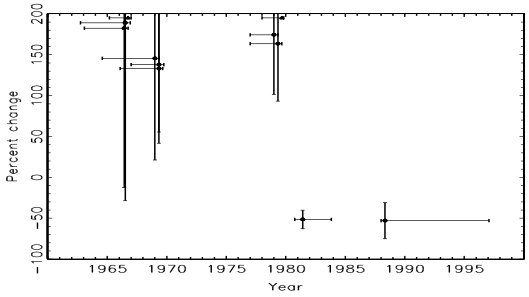
Figure 15: Scatter plots of volatility break dates against percent change in conditional standard deviation during expansions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a linear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



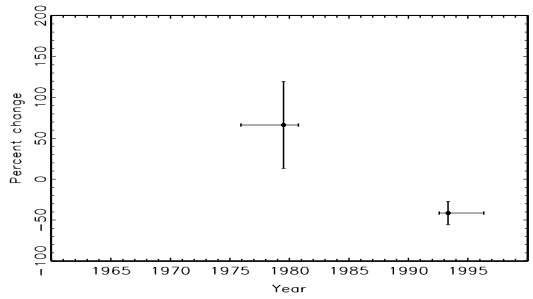
(a) Money and credit



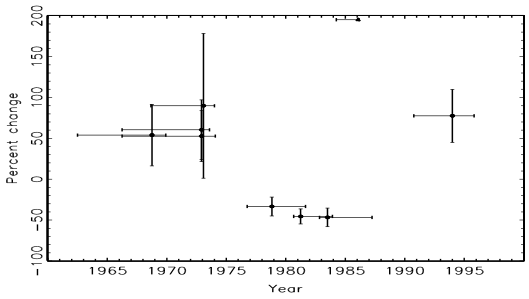
(b) Dividends and volume



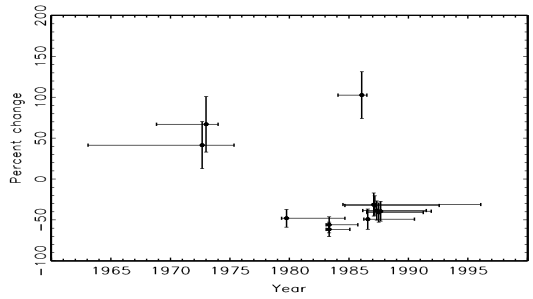
(c) Interest rates



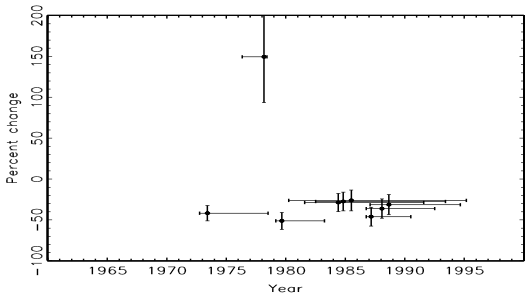
(d) Exchange rates



(e) Producer prices

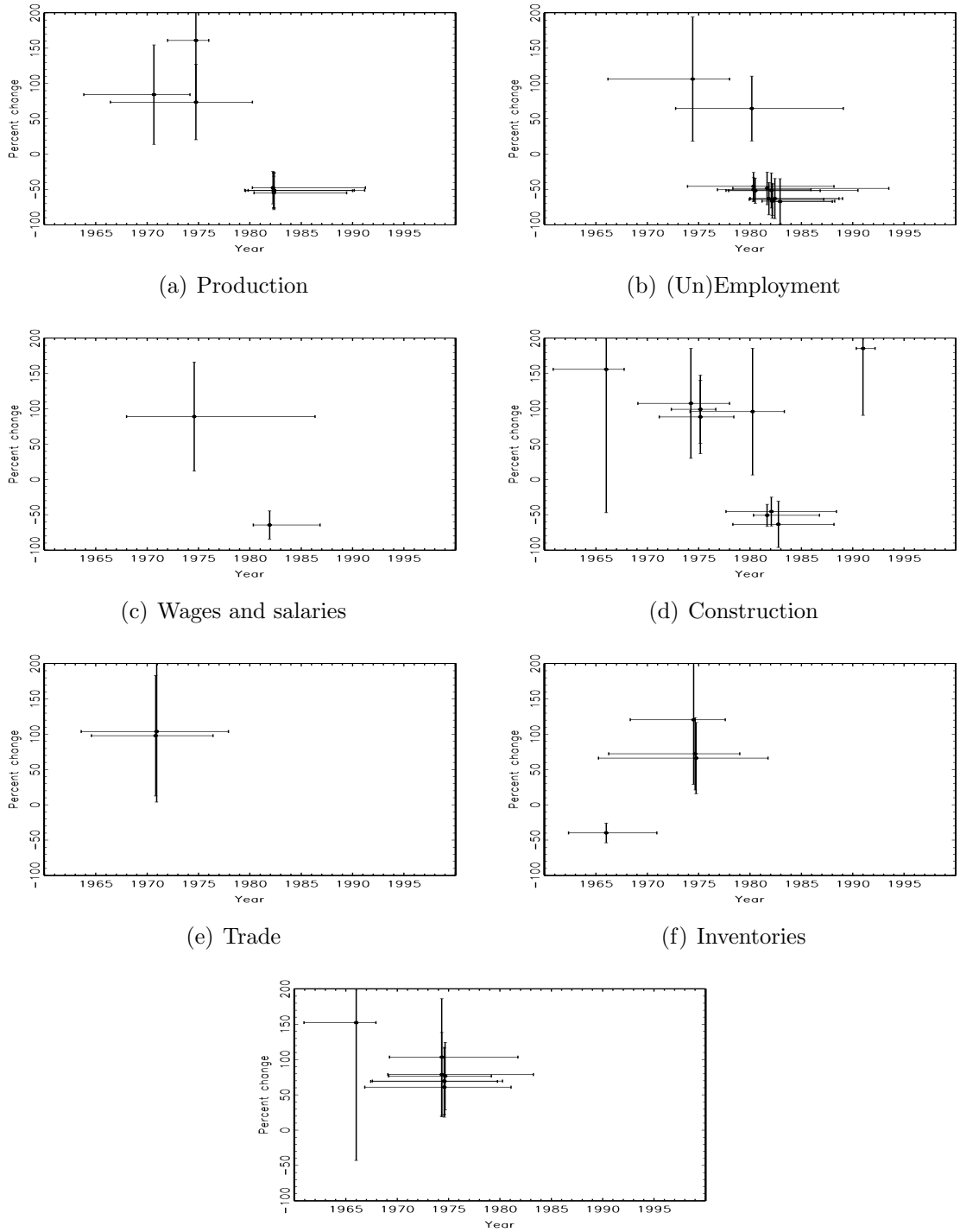


(f) Consumer prices



(g) Miscellaneous

Figure 16: Scatter plots of volatility break dates against percent change in conditional standard deviation during expansions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a linear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

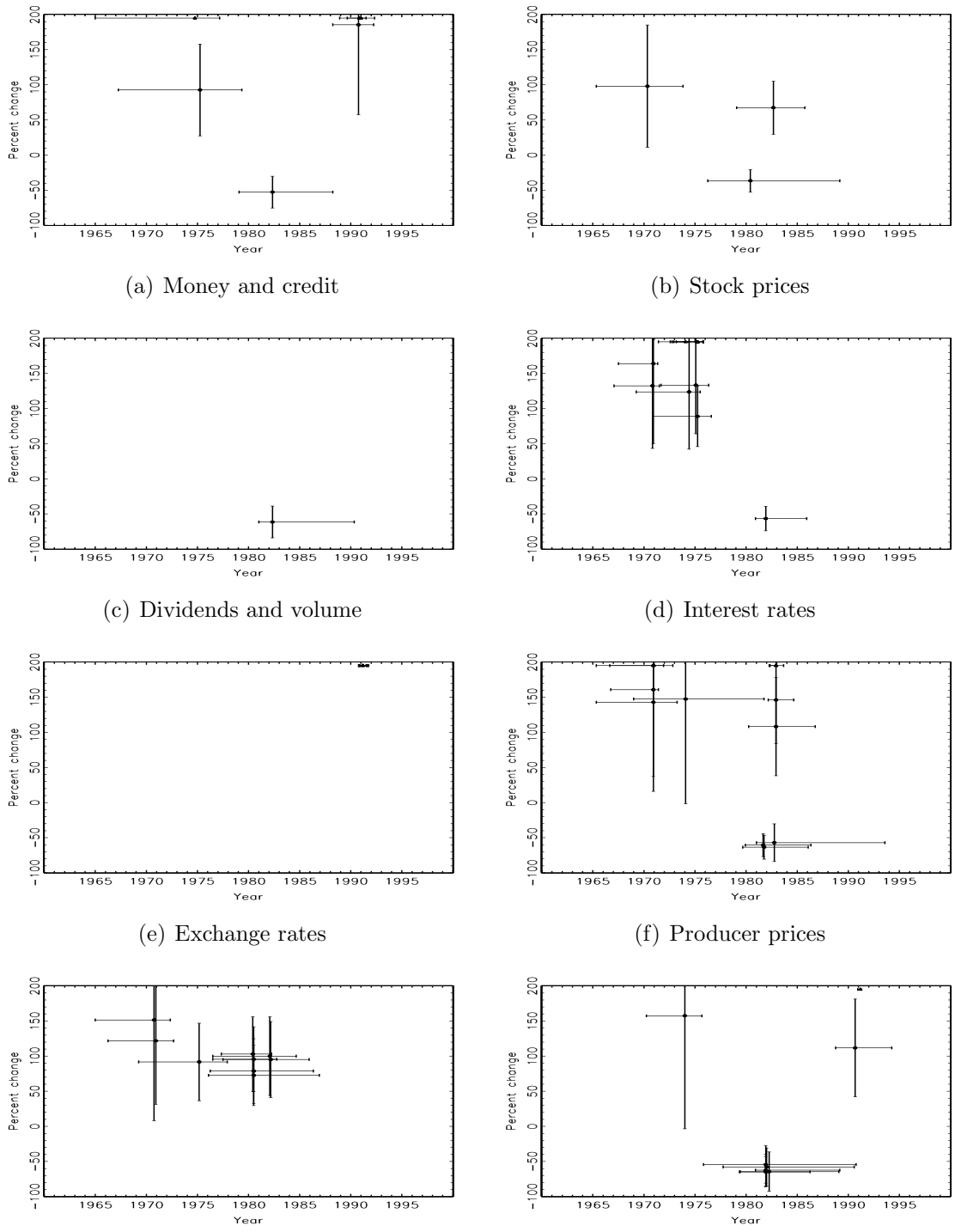
(d) Construction

(e) Trade

(f) Inventories

(g) Orders

Figure 17: Scatter plots of volatility break dates against percent change in conditional standard deviation during recessions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a linear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Money and credit

(b) Stock prices

(c) Dividends and volume

(d) Interest rates

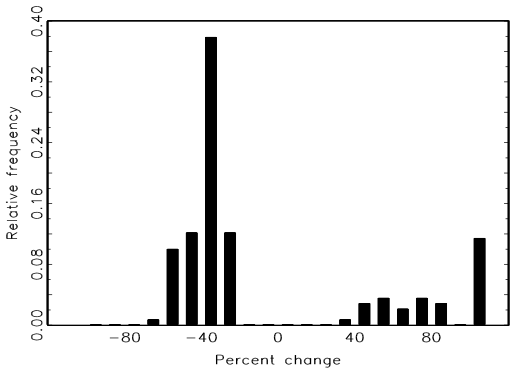
(e) Exchange rates

(f) Producer prices

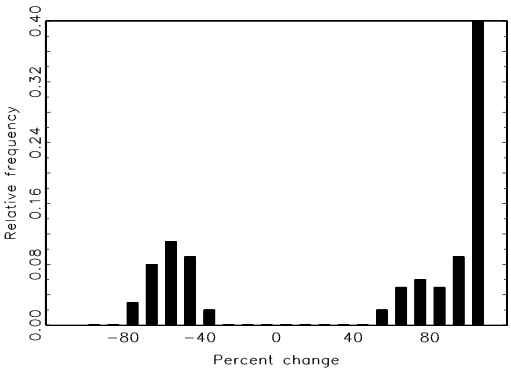
(g) Consumer prices

(h) Miscellaneous

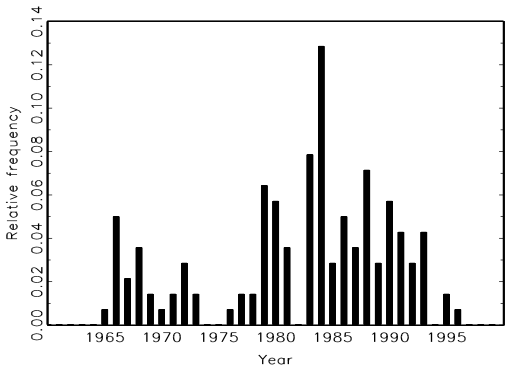
Figure 18: Scatter plots of volatility break dates against percent change in conditional standard deviation during recessions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a linear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



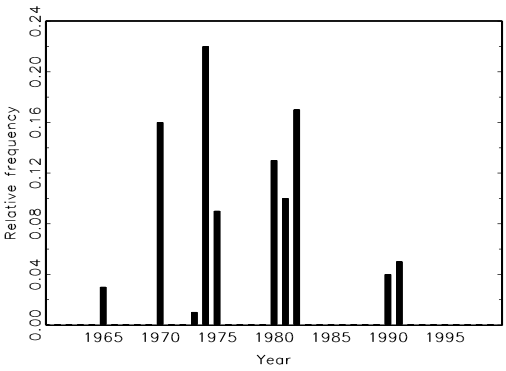
(a) Distribution of percent change in standard deviation during expansions



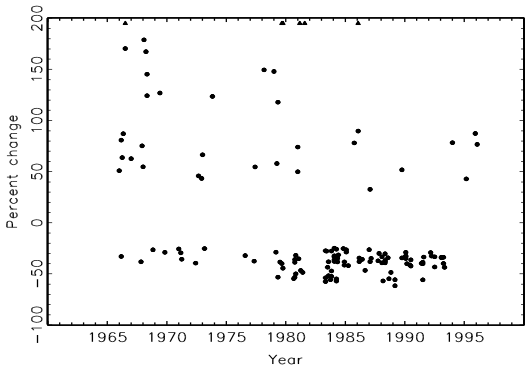
(b) Distribution of percent change in standard deviation during recessions



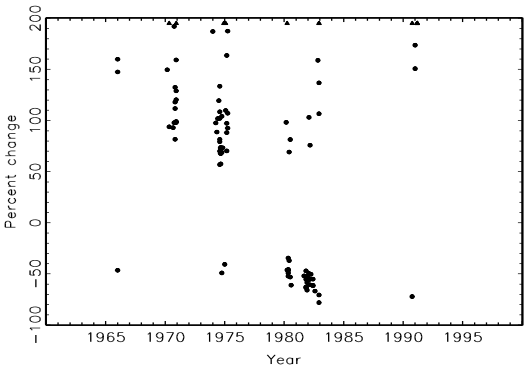
(c) Distribution of break dates for standard deviation during expansions



(d) Distribution of break dates for standard deviation during recessions

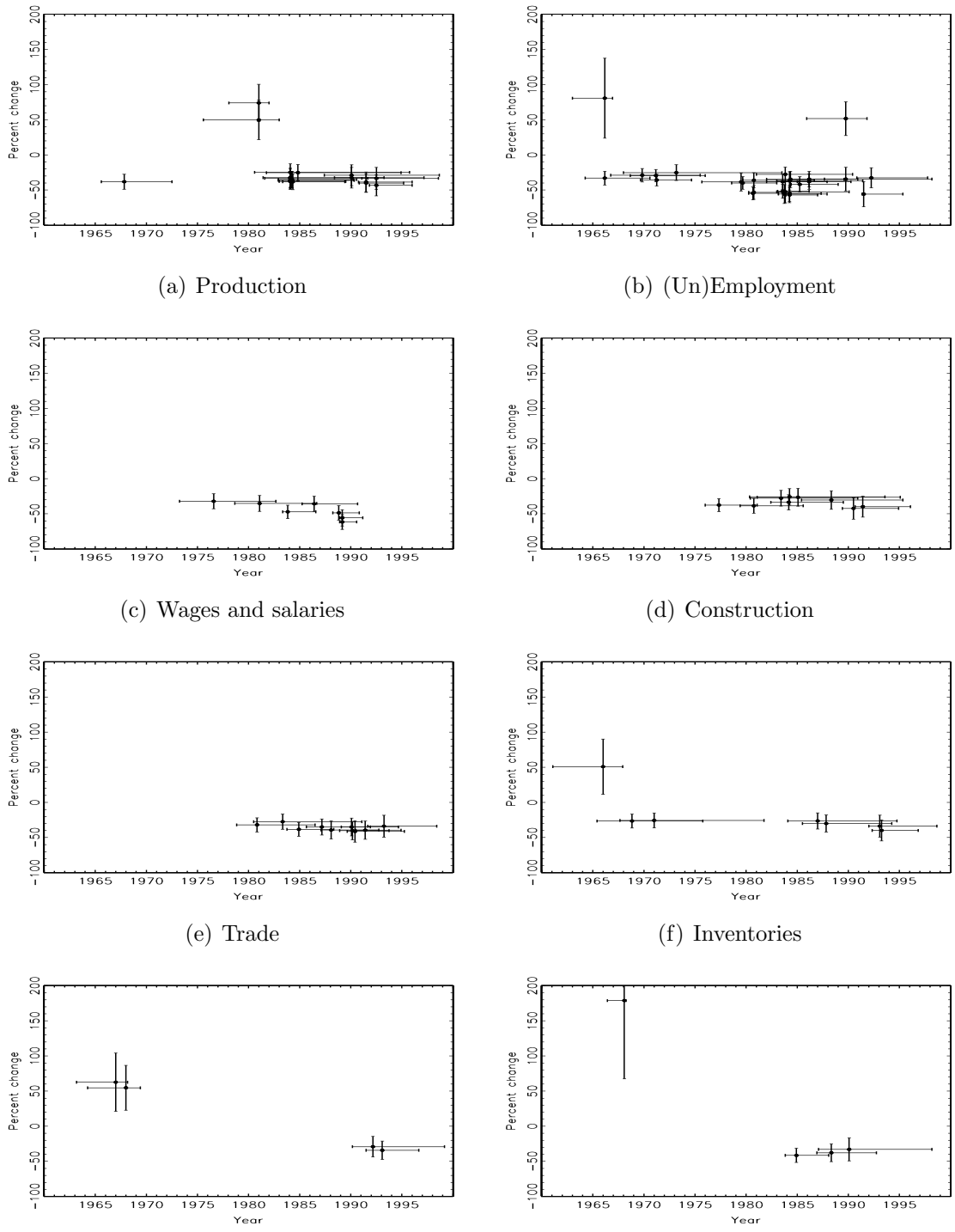


(e) Scatter of break dates against percent change in standard deviation during expansions



(f) Scatter of break dates against percent change in standard deviation during recessions

Figure 19: Characteristics of conditional volatility breaks for series for which the SupW statistics for a structural change in the conditional volatility in recessions and expansions separately are significant at the 5% level, when using a linear AR model with a single structural change for the conditional mean. In panels (e) and (f), series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

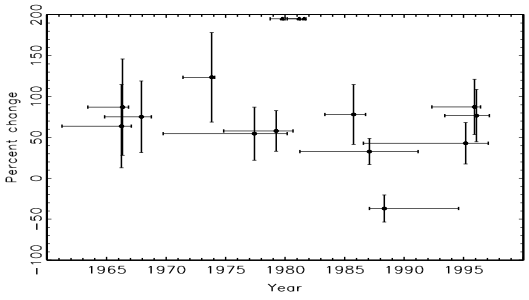
(e) Trade

(f) Inventories

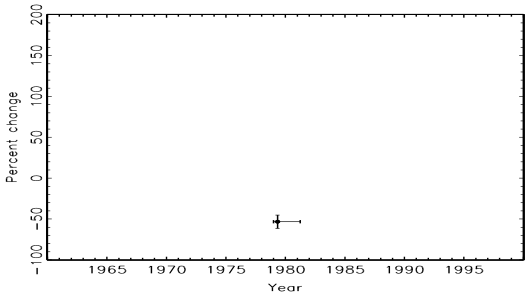
(g) Orders

(h) Consumption

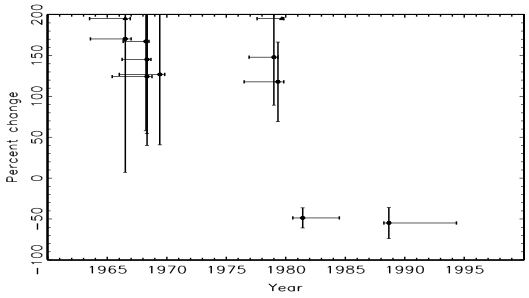
Figure 20: Scatter plots of volatility break dates against percent change in conditional standard deviation during expansions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a linear AR model with a single structural change for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



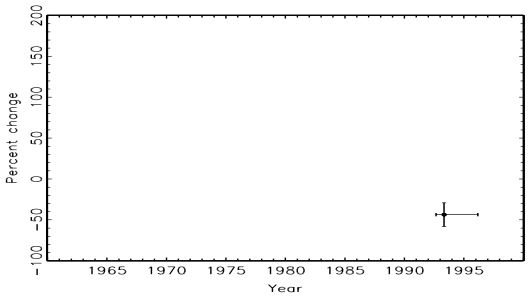
(a) Money and credit



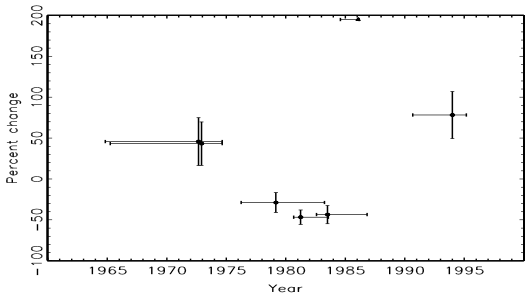
(b) Dividends and volume



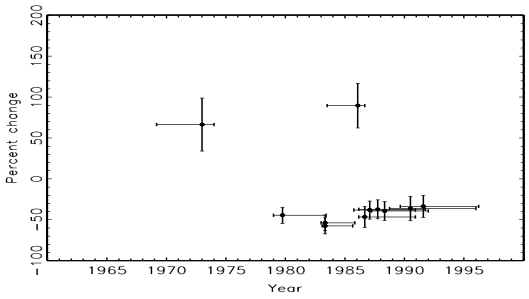
(c) Interest rates



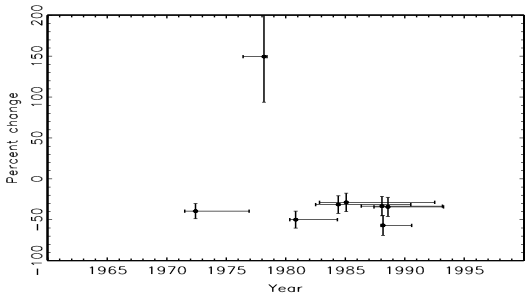
(d) Exchange rates



(e) Producer prices

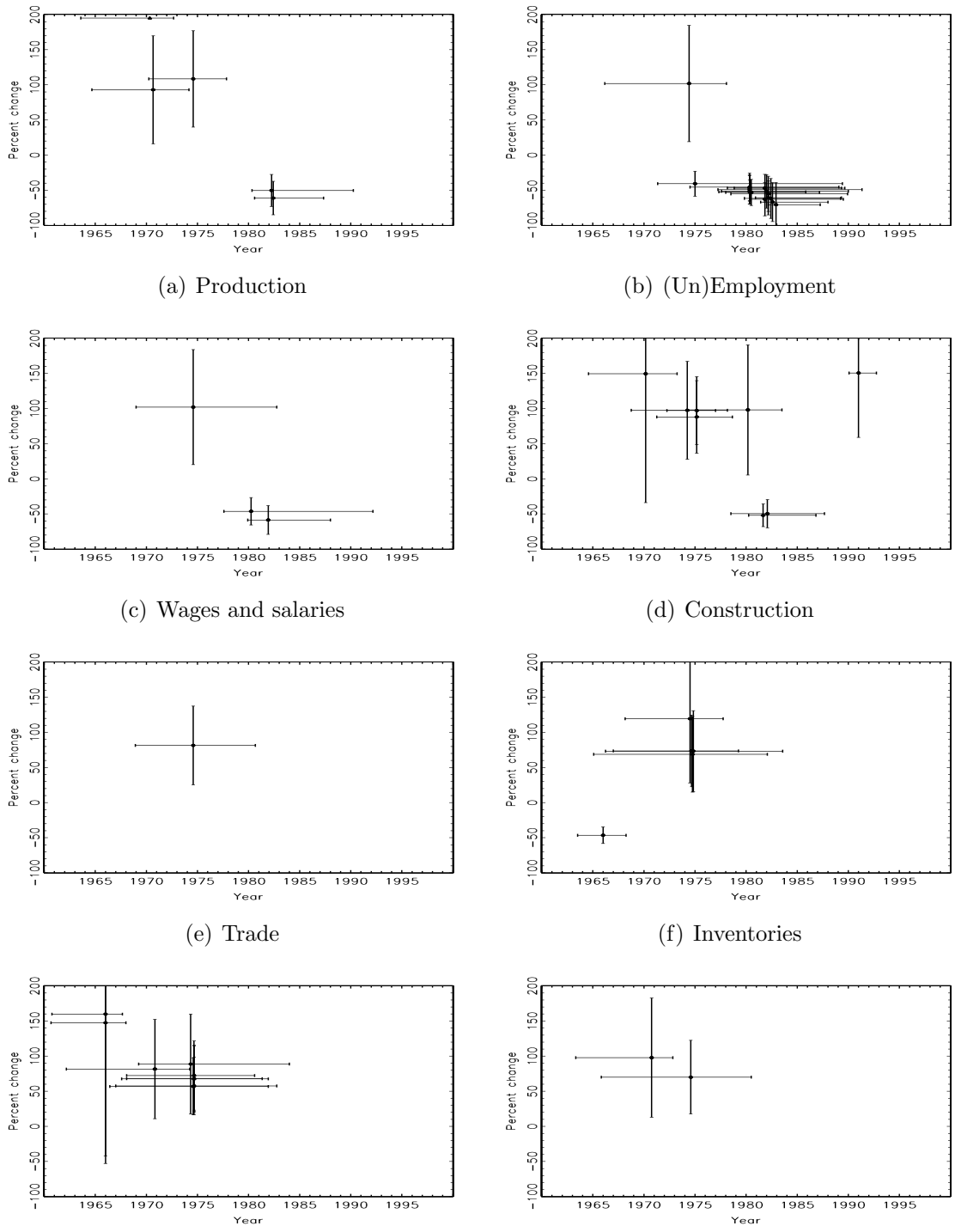


(f) Consumer prices



(g) Miscellaneous

Figure 21: Scatter plots of volatility break dates against percent change in conditional standard deviation during expansions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a linear AR model with a single structural change for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

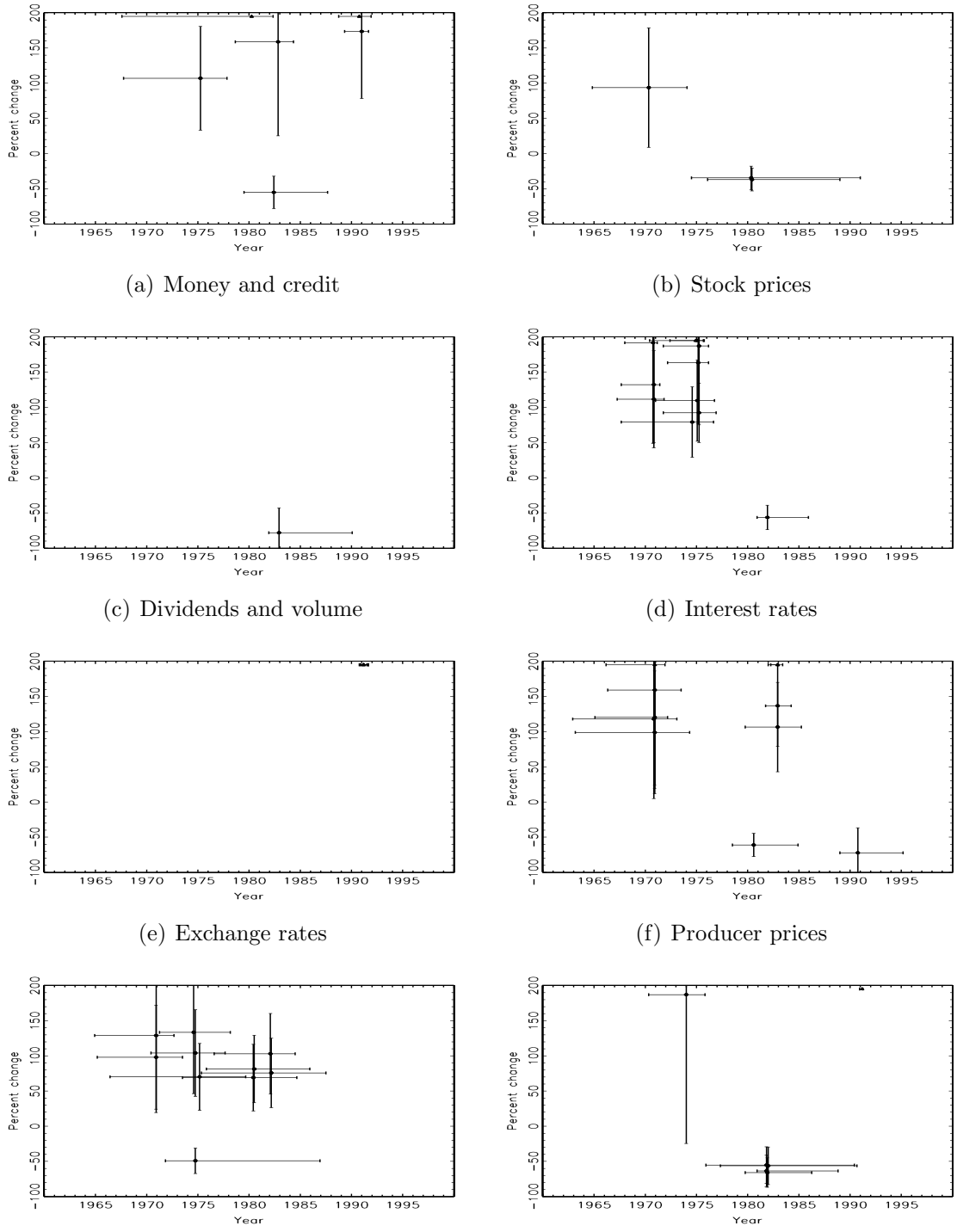
(e) Trade

(f) Inventories

(g) Orders

(h) Consumption

Figure 22: Scatter plots of volatility break dates against percent change in conditional standard deviation during recessions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a linear AR model with a single structural change for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



(a) Money and credit

(b) Stock prices

(c) Dividends and volume

(d) Interest rates

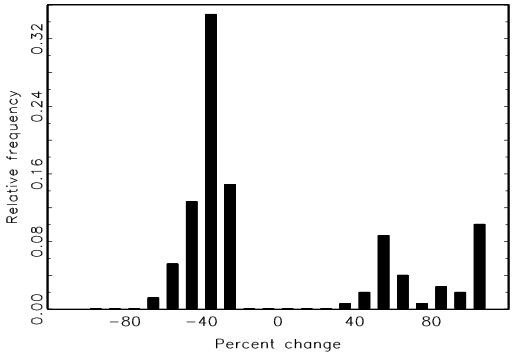
(e) Exchange rates

(f) Producer prices

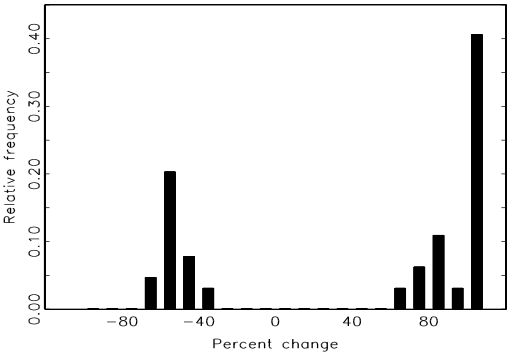
(g) Consumer prices

(h) Miscellaneous

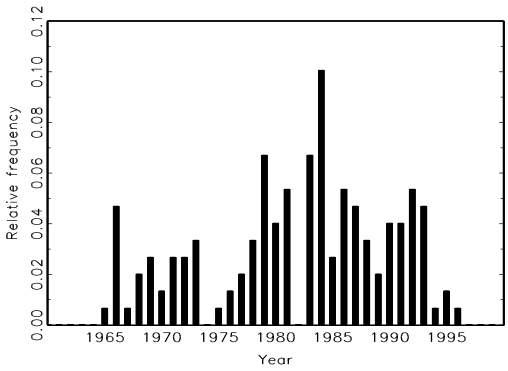
Figure 23: Scatter plots of volatility break dates against percent change in conditional standard deviation during recessions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a linear AR model with a single structural change for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



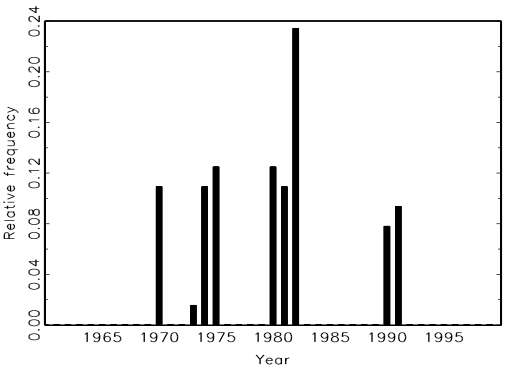
(a) Distribution of percent change in standard deviation during expansions



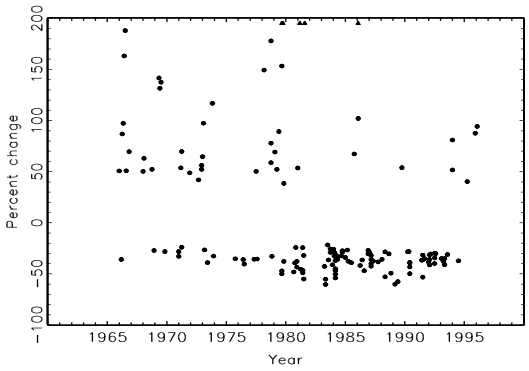
(b) Distribution of percent change in standard deviation during recessions



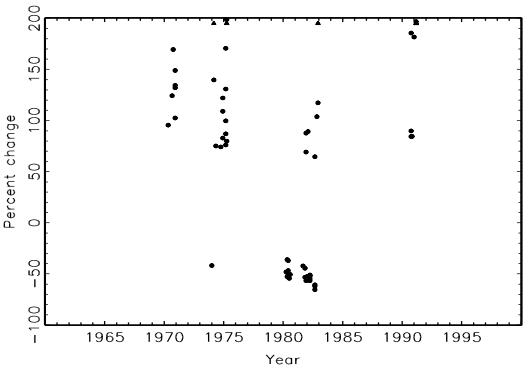
(c) Distribution of break dates for standard deviation during expansions



(d) Distribution of break dates for standard deviation during recessions

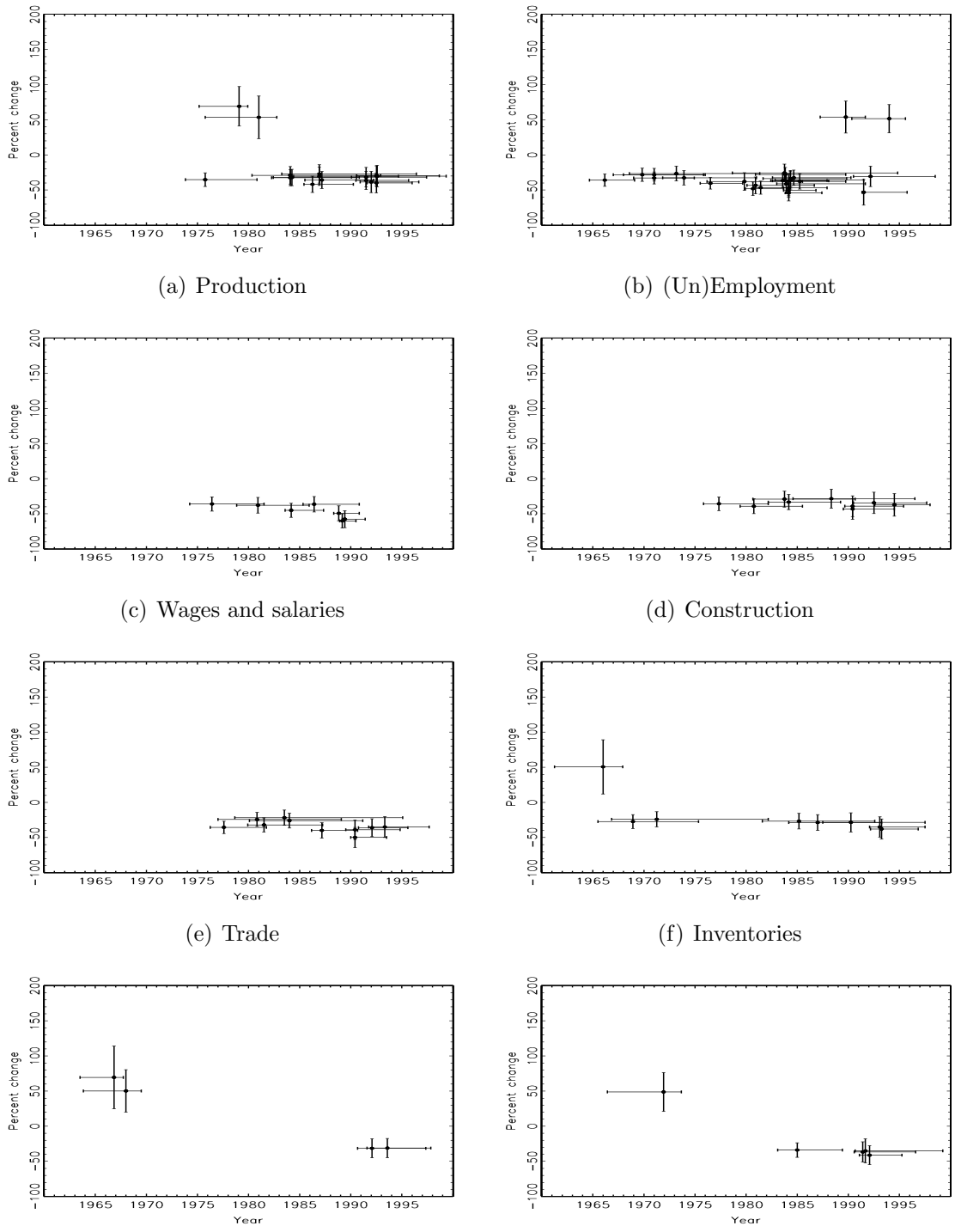


(e) Scatter of break dates against percent change in standard deviation during expansions



(f) Scatter of break dates against percent change in standard deviation during recessions

Figure 24: Characteristics of conditional volatility breaks for series for which the SupW statistics for a structural change in the conditional volatility in recessions and expansions separately are significant at the 5% level, when using a nonlinear AR model with constant parameters for the conditional mean. In panels (e) and (f), series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

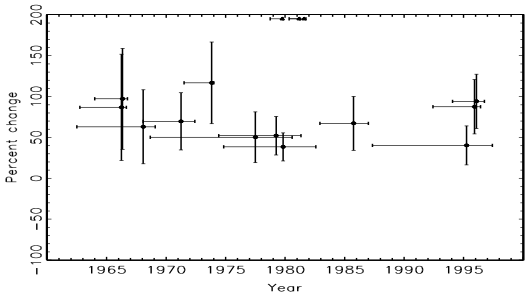
(e) Trade

(f) Inventories

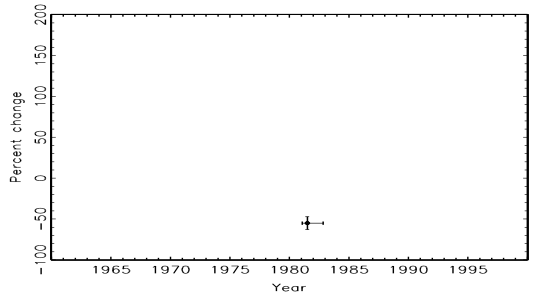
(g) Orders

(h) Consumption

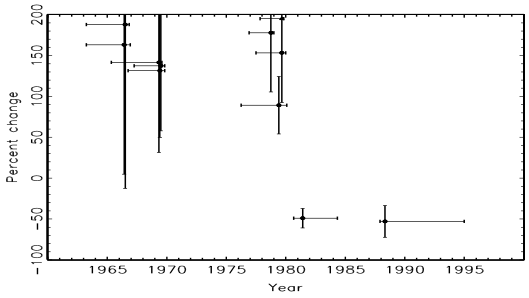
Figure 25: Scatter plots of volatility break dates against percent change in conditional standard deviation during expansions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a nonlinear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



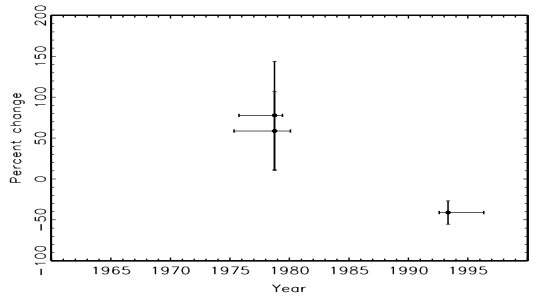
(a) Money and credit



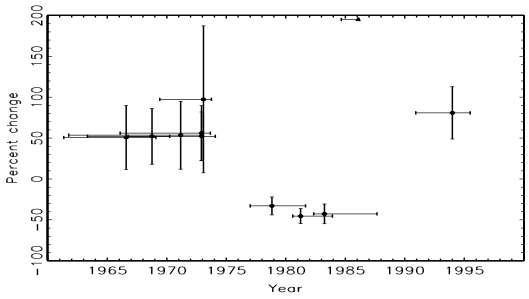
(b) Dividends and volume



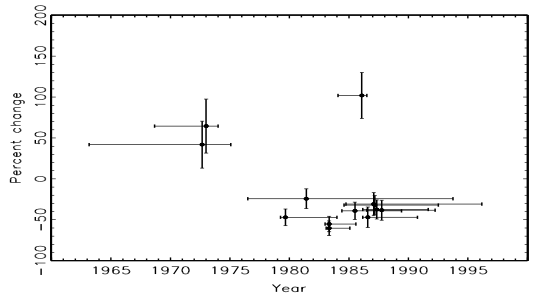
(c) Interest rates



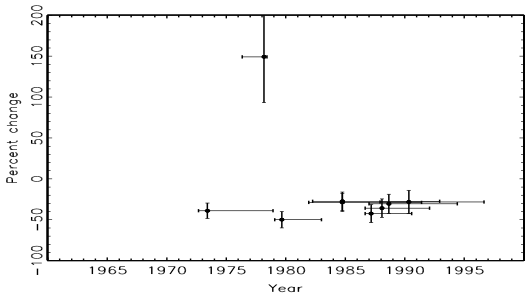
(d) Exchange rates



(e) Producer prices

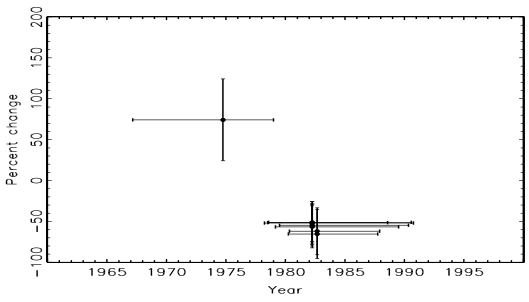


(f) Consumer prices

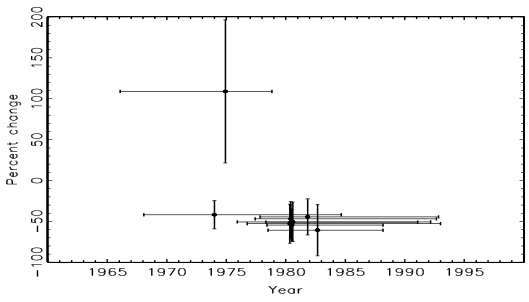


(g) Miscellaneous

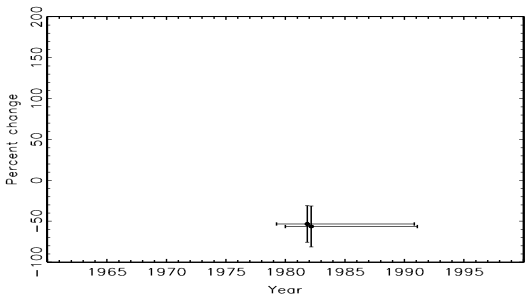
Figure 26: Scatter plots of volatility break dates against percent change in conditional standard deviation during expansions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a nonlinear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



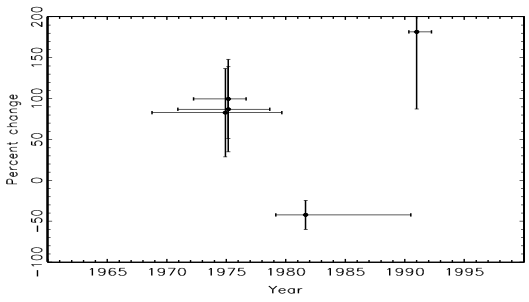
(a) Production



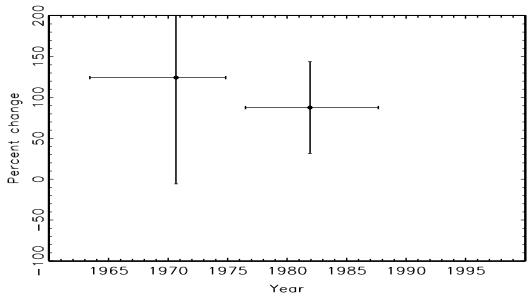
(b) (Un)Employment



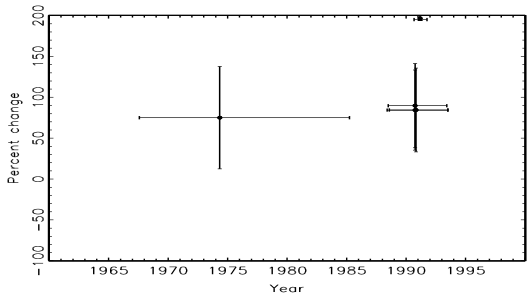
(c) Wages and salaries



(d) Construction

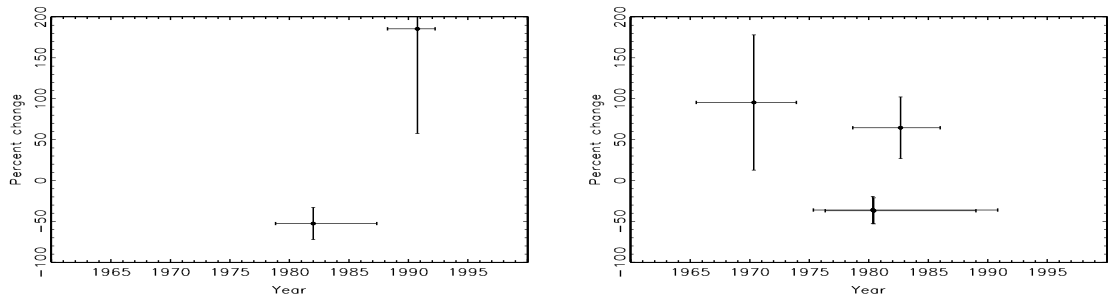


(e) Inventories



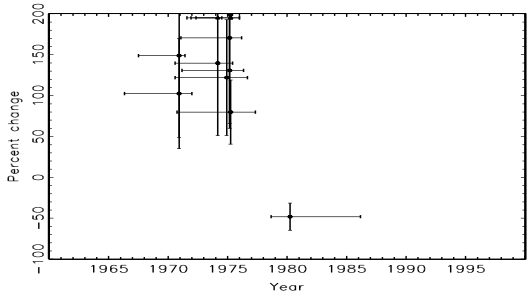
(f) Orders

Figure 27: Scatter plots of volatility break dates against percent change in conditional standard deviation during recessions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a nonlinear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.

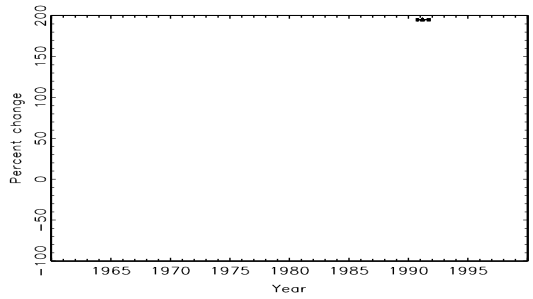


(a) Money and credit

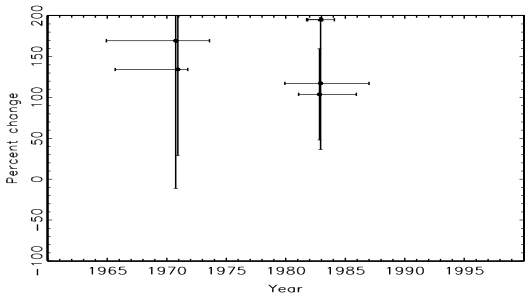
(b) Stock prices



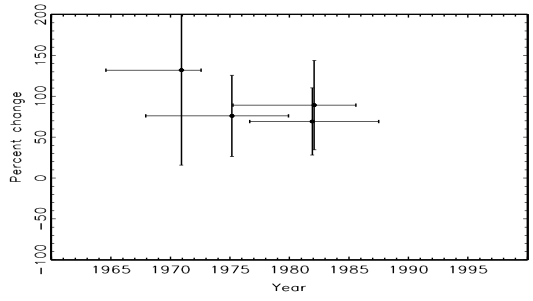
(c) Interest rates



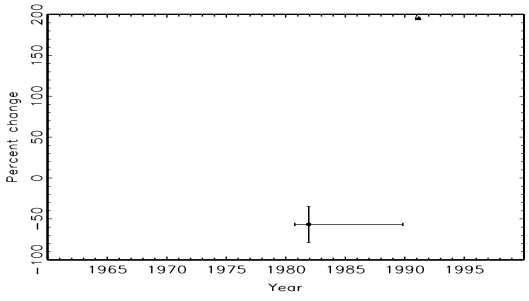
(d) Exchange rates



(e) Producer prices

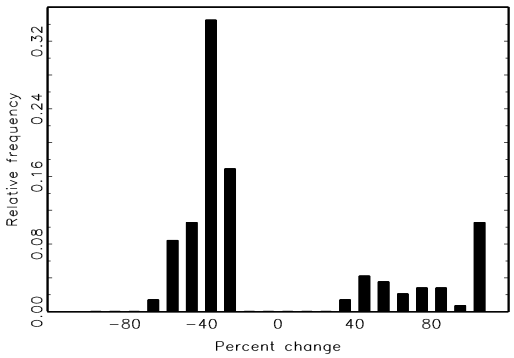


(f) Consumer prices

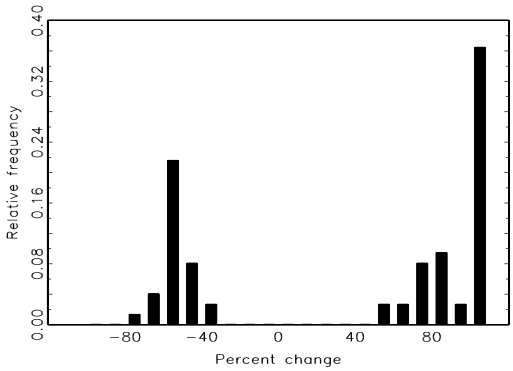


(g) Miscellaneous

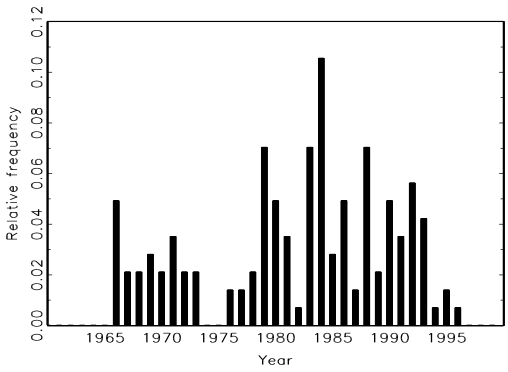
Figure 28: Scatter plots of volatility break dates against percent change in conditional standard deviation during recessions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a nonlinear AR model with constant parameters for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



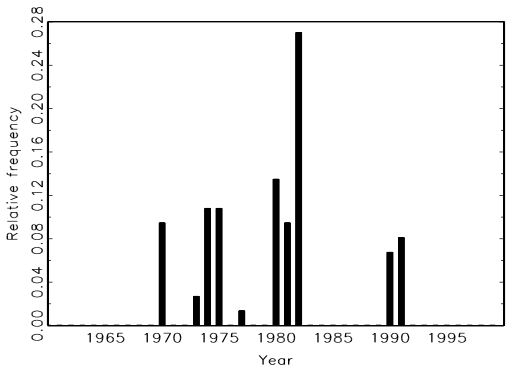
(a) Distribution of percent change in standard deviation during expansions



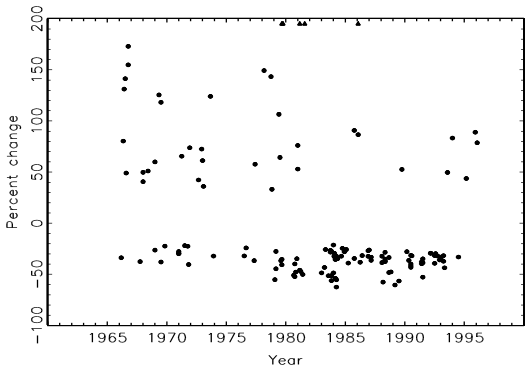
(b) Distribution of percent change in standard deviation during recessions



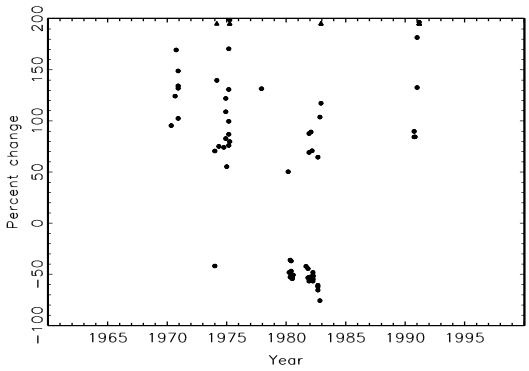
(c) Distribution of break dates for standard deviation during expansions



(d) Distribution of break dates for standard deviation during recessions

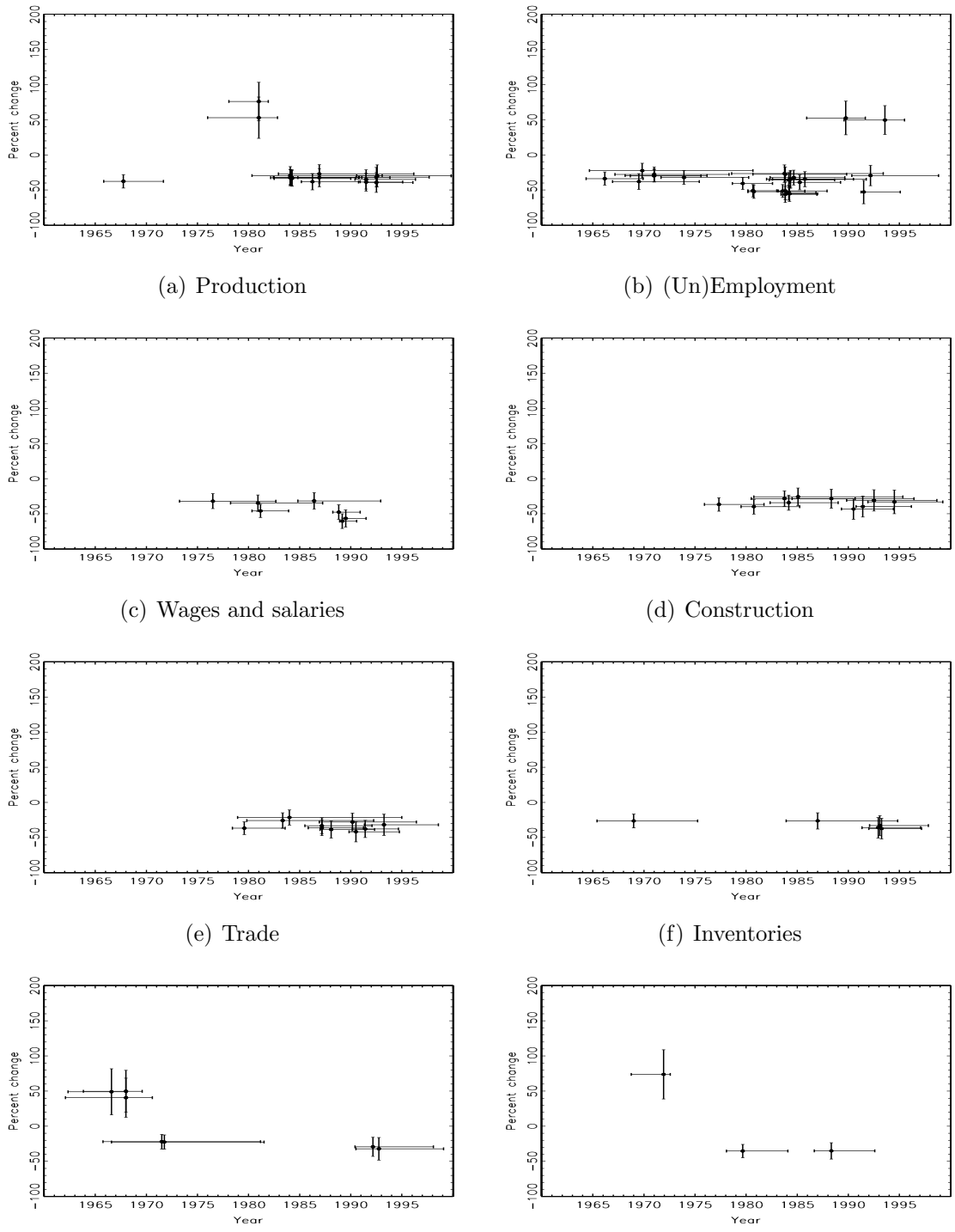


(e) Scatter of break dates against percent change in standard deviation during expansions



(f) Scatter of break dates against percent change in standard deviation during recessions

Figure 29: Characteristics of conditional volatility breaks for series for which the SupW statistics for a structural change in the conditional volatility in recessions and expansions separately are significant at the 5% level, when using a nonlinear AR model with a single structural change during expansions for the conditional mean. In panels (a) and (b), series for which the standard deviation more than doubles are collected in the right-most category. In panels (e) and (f), series for which the standard deviation more than triples are shown as triangles.



(a) Production

(b) (Un)Employment

(c) Wages and salaries

(d) Construction

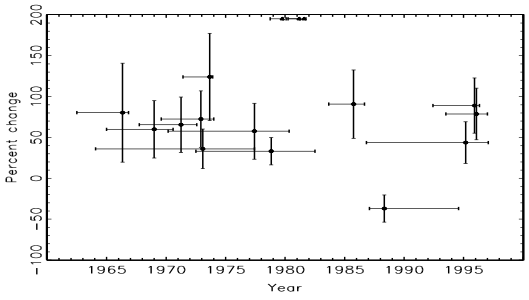
(e) Trade

(f) Inventories

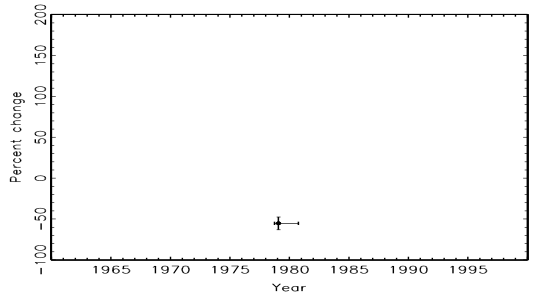
(g) Orders

(h) Consumption

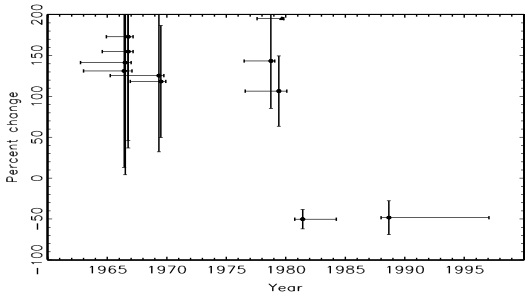
Figure 30: Scatter plots of volatility break dates against percent change in conditional standard deviation during expansions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a nonlinear AR model with a single structural change during expansions for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.



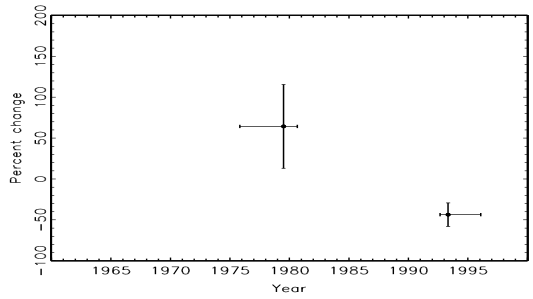
(a) Money and credit



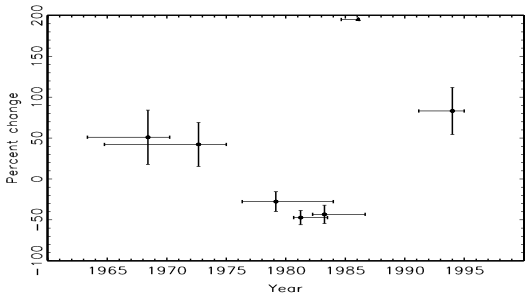
(b) Dividends and volume



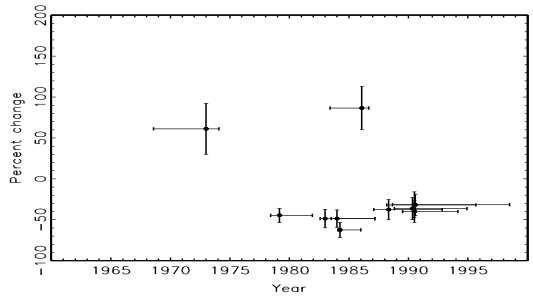
(c) Interest rates



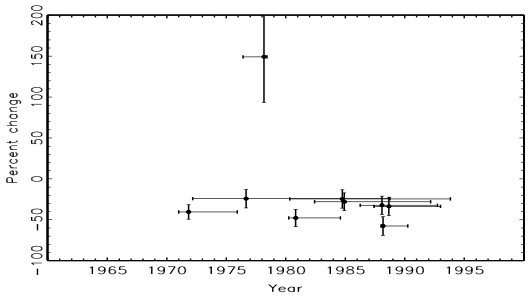
(d) Exchange rates



(e) Producer prices

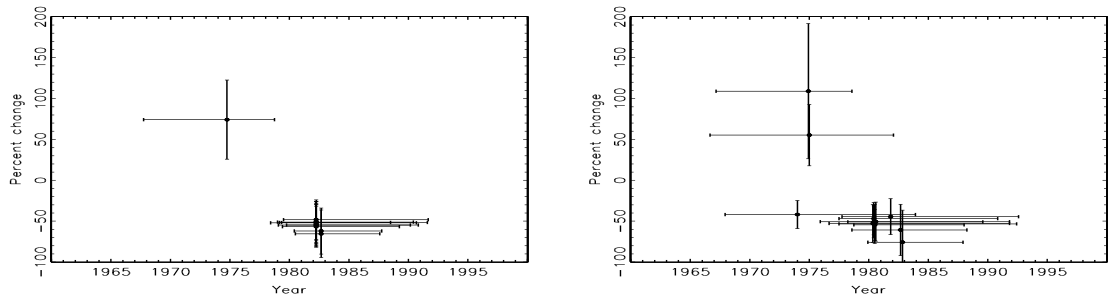


(f) Consumer prices



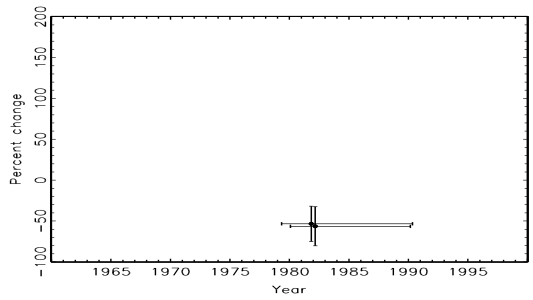
(g) Miscellaneous

Figure 31: Scatter plots of volatility break dates against percent change in conditional standard deviation during expansions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a nonlinear AR model with a single structural change during expansions for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.

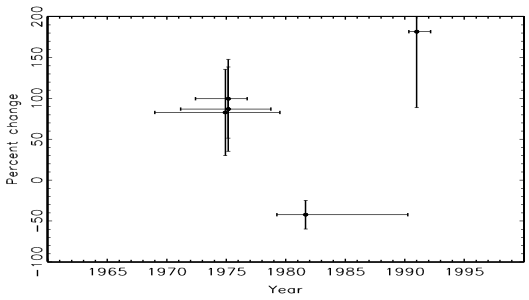


(a) Production

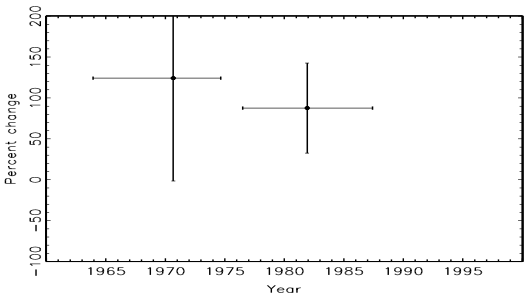
(b) (Un)Employment



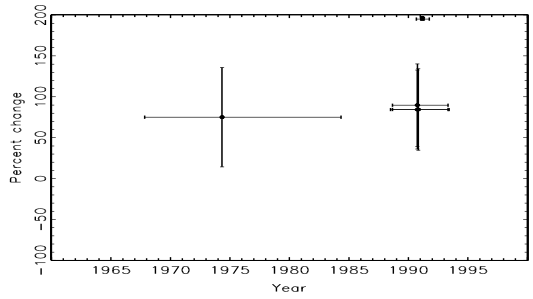
(c) Wages and salaries



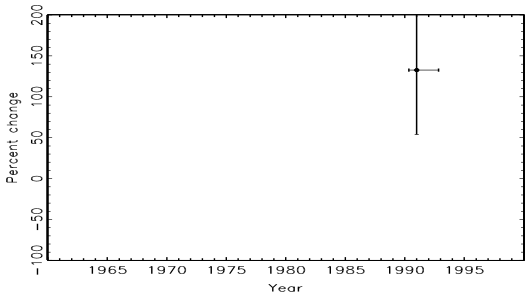
(d) Construction



(e) Inventories

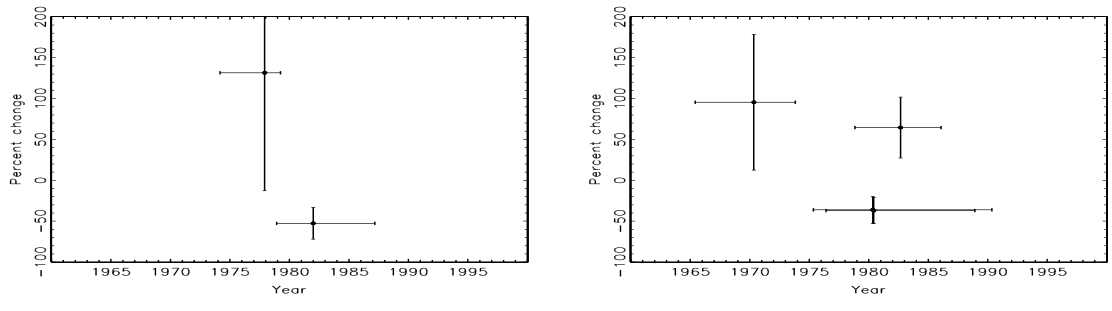


(f) Orders



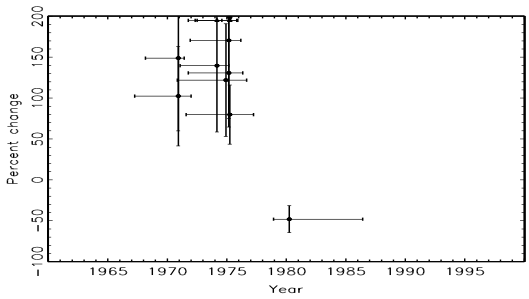
(g) Consumption

Figure 32: Scatter plots of volatility break dates against percent change in conditional standard deviation during recessions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a nonlinear AR model with a single structural change during expansions for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.

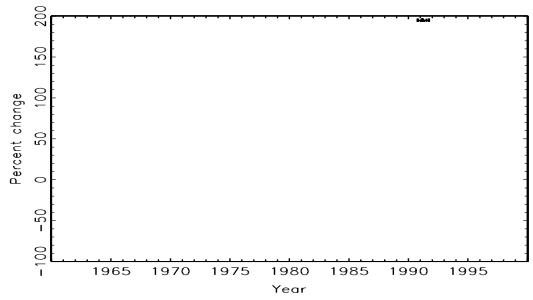


(a) Money and credit

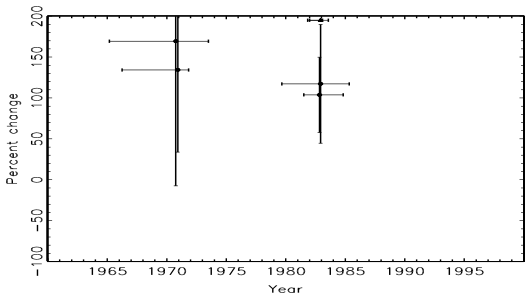
(b) Stock prices



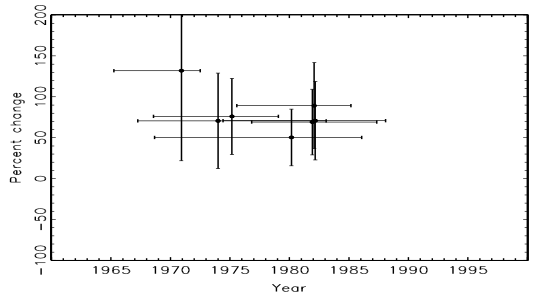
(c) Interest rates



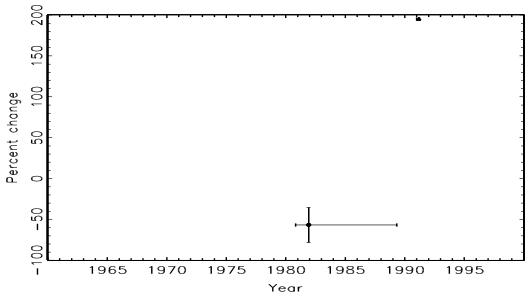
(d) Exchange rates



(e) Producer prices



(f) Consumer prices



(g) Miscellaneous

Figure 33: Scatter plots of volatility break dates against percent change in conditional standard deviation during recessions for series for which the SupW statistic for a structural change in the conditional volatility in expansions only is significant at the 5% level, when using a nonlinear AR model with a single structural change during expansions for the conditional mean. 90% confidence intervals for the break date and the percent change in standard deviation are included. Series for which the standard deviation more than triples are shown as triangles.