

APPENDIX 1

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PrInv.in7 loaded from U:\tf\Wang\Marquez\Residuals\2003\Data\PrInv.in7
Algebra loaded from U:\tf\Wang\Marquez\Residuals\2003\Data\prInvIFDP.alg
Algebra saved to U:\tf\Wang\Marquez\Residuals\2003\Data\prInvIFDP.alg

Algebra code for PrInv.in7:

relResidPrInvest=100*ResidPrInvest/PrInvestR;

d911 = dummy(2001,3, 2001,3);

inflation = 400*(diff(CPI,1)/lag(CPI,1));

Lreer = log(reer);
Lreer2 = Lreer^2;

LbroadXR = log(broadXR);
LbroadXR2 = LbroadXR^2;

RealFedfund = fedfund - lag(inflation,1);
RealFedfund2 = RealFedfund^2;

Rtcm30y = tcm30y- lag(inflation,1);
Rtcm30y2 = Rtcm30y^2;

Rintl0y = intl0y- lag(inflation,1);
Rintl0y2 = Rintl0y^2;

PInv = nomPrInv/PrInv;
LRPoilPInv = log(upmgfluv/PInv);
LRPoilPInv2 = LRPoilPInv^2;

LRPpcInv = log(PcPriceInv/PInv); // Computer Prices
LRPpcInv2 = LRPpcInv^2;

ResInvNS = (PrInvNS - (PrInvNS1+PrInvNS2+PrInvNS3+PrInvNS4));
ResInvNE1 = (PrInvNE1 - (PrInvNE11+PrInvNE12+PrInvNE13));
ResInvNE = (PrInvNE - (PrInvNE1+PrInvNE2+PrInvNE3+PrInvNE4));
ResInvRS = (PrInvRS - (PrInvRS1+PrInvRS2+PrInvRS3));
ResInv = (PrInv - (PrInvNS+PrInvNE+PrInvRS+PrInvRE));

relResInvNS = (PrInvNS - (PrInvNS1+PrInvNS2+PrInvNS3+PrInvNS4))*100/PrInvNS;
relResInvNE1 = (PrInvNE1 - (PrInvNE11+PrInvNE12+PrInvNE13))*100/PrInvNE1; //R/Y R
relResInvNE = (PrInvNE - (PrInvNE1+PrInvNE2+PrInvNE3+PrInvNE4))*100/PrInvNE;
relResInvRS = (PrInvRS - (PrInvRS1+PrInvRS2+PrInvRS3))*100/PrInvRS;
relResInv = (PrInv - (PrInvNS+PrInvNE+PrInvRS+PrInvRE))*100/PrInv;

//Definitions

p=LRPpcInv; // RELATIVE PRICE OF OIL
w=LRPpcInv; // RELATIVE PRICE OF IT INVESTMENT
qIMF=Lreer; // IMF'S REAL EFFECTIVE EXCHANGE RATE
qFRB=LbroadXR; // FRB'S REAL EFFECTIVE EXCHANGE RATE
rFedfund=RealFedfund; // REAL FEDERAL FUNDS RATE
r30y=Rtcm30y; // REAL 30-YEAR INTEREST RATE
r10y=Rintl0y; // REAL 10-YEAR INTEREST RATE

p2=LRPpcInv2; // SQUARED OF P
w2=LRPpcInv2; // SQUARED OF W
qIMF2=Lreer2; // SQUARED OF IMF'S Q

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qFRB2=LbroadXR2; // SQUARED OF FRB'S Q
rFedfund2=RealFedfund2; // SQUARED OF REAL FEDERAL FUNDS RATE
r30y2=Rtcm30y2; // SQUARED OF REAL 30-YEAR INTEREST RATE
r10y2=Rintl0y2; // SQUARED OF REAL 10-YEAR INTEREST RATE

//Contribution of W to R

Weffect = 25.74797*w - 2.95956*w2;
varW = 4.868^2 + 0.5655^2 - 2.6994;
stdW = sqrt(varW);
Upp95 = Weffect + 2*stdW;
Low95 = Weffect - 2*stdW;

Batch loaded from U:\tf\Wang\Marquez\Residuals\2003\Estimation\nonlinear\Prinv_DisaggNonLi
nearRename.fl

module("PcGets");
package("PcGets");
usedata("PrInv.in7");

system
{
Y = relResInvNE1;
X = Constant, relResInvNE1_1, relResInvNE1_2, relResInvNE1_3, relResInvNE1_4, relResInvNE1_5,
w, w_1, w2, w2_1, p, p_1, p2, p2_1,
qIMF, qIMF_1, qIMF2, qIMF2_1,
rFedfund, rFedfund_1, rFedfund2, rFedfund2_1,
Trend, d911;
}
setdetectoutliers(0);
set0lagorder(1);
set0topdown(1);
set0bottomup(1);
setsplitsample(1);
setstrategy("lib",1);
setreporting(0);
estimate("GETS", 1988, 2, 2002, 3);
dynamics;

system
{
Y = relResInvNE1;
X = Constant, relResInvNE1_1, relResInvNE1_2, relResInvNE1_3, relResInvNE1_4, relResInvNE1_5,
w, w_1, w2, w2_1, p, p_1, p2, p2_1,
qIMF, qIMF_1, qIMF2, qIMF2_1,
r10y, r10y_1, r10y2, r10y2_1,
Trend, d911;
}
setdetectoutliers(0);
set0lagorder(1);
set0topdown(1);
set0bottomup(1);
setsplitsample(1);
setstrategy("lib",1);
setreporting(0);
estimate("GETS", 1988, 2, 2002, 3);
dynamics;

system
{
Y = relResInvNE1;
X = Constant, relResInvNE1_1, relResInvNE1_2, relResInvNE1_3, relResInvNE1_4, relResInvNE1_5,
w, w_1, w2, w2_1, p, p_1, p2, p2_1,
qIMF, qIMF_1, qIMF2, qIMF2_1,

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r30y, r30y_1, r30y2, r30y2_1,
Trend, d911;
}
setdetectoutliers(0);
set0lagorder(1);
set0topdown(1);
set0bottomup(1);
setsplitsample(1);
setstrategy("lib",1);
setreporting(0);
estimate("GETS", 1988, 2, 2002, 3);
dynamics;

/////

system
{
  Y = relResInvNE1;
  X = Constant, relResInvNE1_1, relResInvNE1_2, relResInvNE1_3, relResInvNE1_4, relResInvNE1_5,
  w, w_1, w2, w2_1, p, p_1, p2, p2_1,
  qFRB, qFRB_1, qFRB2, qFRB2_1,
  rFedfund, rFedfund_1, rFedfund2, rFedfund2_1,
  Trend, d911;
}
setdetectoutliers(0);
set0lagorder(1);
set0topdown(1);
set0bottomup(1);
setsplitsample(1);
setstrategy("lib",1);
setreporting(0);
estimate("GETS", 1988, 2, 2002, 3);
dynamics;

system
{
  Y = relResInvNE1;
  X = Constant, relResInvNE1_1, relResInvNE1_2, relResInvNE1_3, relResInvNE1_4, relResInvNE1_5,
  w, w_1, w2, w2_1, p, p_1, p2, p2_1,
  qFRB, qFRB_1, qFRB2, qFRB2_1,
  r10y, r10y_1, r10y2, r10y2_1,
  Trend, d911;
}
setdetectoutliers(0);
set0lagorder(1);
set0topdown(1);
set0bottomup(1);
setsplitsample(1);
setstrategy("lib",1);
setreporting(0);
estimate("GETS", 1988, 2, 2002, 3);
dynamics;

system
{
  Y = relResInvNE1;
  X = Constant, relResInvNE1_1, relResInvNE1_2, relResInvNE1_3, relResInvNE1_4, relResInvNE1_5,
  w, w_1, w2, w2_1, p, p_1, p2, p2_1,
  qFRB, qFRB_1, qFRB2, qFRB2_1,
  r30y, r30y_1, r30y2, r30y2_1,
  Trend, d911;
}
setdetectoutliers(0);
set0lagorder(1);
set0topdown(1);
set0bottomup(1);
setsplitsample(1);

```

```

setstrategy("lib",1);
setreporting(0);
estimate("GETS", 1988, 2, 2002, 3);
dynamics;

Ox version 3.00 (Windows) (C) J.A. Doornik, 1994-2001

Ox version 3.00 (Windows) (C) J.A. Doornik, 1994-2001
PcGets (c) D F Hendry and H-M Krolzig, 1998-2001, package version 1.02, object created on
-28-05-2003

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GUM( 1) Modelling relResInvNE1 by GETS (using PrInv.in7), 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob
Constant	-51.04846	23.93308	-2.133	0.0402
relResInvNE1_1	0.81045	0.15759	5.143	0.0000
relResInvNE1_2	-0.35861	0.19350	-1.853	0.0725
relResInvNE1_3	0.27456	0.20483	1.340	0.1890
relResInvNE1_4	-0.29532	0.21901	-1.348	0.1864
relResInvNE1_5	0.06170	0.14394	0.429	0.6709
w	22.80914	33.43163	0.682	0.4997
w_1	11.20421	35.21756	0.318	0.7523
w2	-3.03586	3.52268	-0.862	0.3948
w2_1	-0.97035	3.70563	-0.262	0.7950
p	-7.93644	7.63429	-1.040	0.3059
p_1	14.62362	7.47720	1.956	0.0588
p2	1.61169	1.33327	1.209	0.2351
p2_1	-2.71018	1.28629	-2.107	0.0426
qIMF	-44.71362	18.93748	-2.361	0.0241
qIMF_1	-28.94281	20.40839	-1.418	0.1652
qIMF2	61.69506	27.66754	2.230	0.0325
qIMF2_1	42.79788	30.51980	1.402	0.1699
rFedfund	-0.14948	0.13554	-1.103	0.2778
rFedfund_1	0.20335	0.17820	1.141	0.2618
rFedfund2	0.02101	0.02603	0.807	0.4253
rFedfund2_1	-0.04222	0.03587	-1.177	0.2474
Trend	-0.15374	0.09193	-1.672	0.1036
d911	1.85013	0.60632	3.051	0.0044

	RSS	7.35056	sigma	0.46497	R^2	0.98816	Radj^2	0.98014
LogLik	59.90431	AIC	-1.23808	HQ	-0.90598	SC	-0.38548	
T	58	p	24	FpNull	0.00000	FpConst	0.00000	

	value	prob	alpha
Chow(1995:3)	4.0326	0.0439	0.0050
Chow(2001:2)	1.2585	0.3083	0.0100
normality test	0.2851	0.8671	0.0100
AR 1-4 test	0.5352	0.7109	0.0100
ARCH 1-4 test	0.3322	0.8537	0.0100
hetero test	44.3185	0.1903	0.0100

Significance levels (alpha) set for subsequent tests.

\*\*\* Warning: OLS - W'W is singular.

Final model 1

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-33.72100	11.85985	-2.843	0.0066	0.0120	0.0120	1.0000
relResInvNE1_1	0.65110	0.09676	6.729	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.13332	0.07644	-1.744	0.0878	0.0108	0.3726	0.7000

w	30.76260	5.42798	5.667	0.0000	0.0002	0.0000	1.0000
w2	-3.71611	0.64604	-5.752	0.0000	0.0003	0.0000	1.0000
p2	0.14435	0.05698	2.533	0.0148	0.1094	0.0003	1.0000
qIMF	-27.09936	15.65847	-1.731	0.0902	0.0031	0.8595	0.4421
qIMF_1	-30.31039	15.96356	-1.899	0.0639	0.8235	0.0000	0.4530
qIMF2	43.10905	23.45205	1.838	0.0725	0.0018	0.6854	0.4944
qIMF2_1	43.10436	24.38325	1.768	0.0837	0.8527	0.0001	0.4442
Trend	-0.17846	0.05714	-3.123	0.0031	0.0079	0.1116	1.0000
d911	1.95759	0.53057	3.690	0.0006	1.0000	0.0001	0.4000

RSS	9.80100	sigma	0.45665	R^2	0.98421	Radj^2	0.98085
LogLik	51.56079	AIC	-1.39865	HQ	-1.24643	SC	-1.00787
T	58	p	11	FpNull	0.00000	FpGUM	0.58769
		value	prob				
Chow(1995:3)		1.8397	0.0852				
Chow(2001:2)		1.9968	0.0989				
normality test		0.9526	0.6211				
AR 1-4 test		0.3764	0.8242				
ARCH 1-4 test		1.8376	0.1412				
hetero test		30.0091	0.0263				

RSS	9.87644	sigma	0.46336	R^2	0.98409	Radj^2	0.98028
LogLik	51.33842	AIC	-1.35650	HQ	-1.19045	SC	-0.93020
T	58	p	12	FpNull	0.00000	FpGUM	0.49172

\*\*\* Warning: OLS - W'W is singular.

	value	prob
Chow(1995:3)	1.5562	0.1653
Chow(2001:2)	1.7037	0.1554
normality test	1.4185	0.4920
AR 1-4 test	0.4754	0.7535
ARCH 1-4 test	2.2681	0.0798
hetero test	22.3726	0.2159

Final model 4

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-57.89135	10.26919	-5.637	0.0000	0.0001	0.0000	1.0000
relResInvNE1_1	0.72851	0.09266	7.862	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.16818	0.07754	-2.169	0.0352	0.0088	0.4278	0.7000
w	26.76283	4.95913	5.397	0.0000	0.0000	0.0000	1.0000
w2	-2.90495	0.54700	-5.311	0.0000	0.0000	0.0001	1.0000
p2	0.21426	0.09111	2.352	0.0229	0.0077	0.1602	0.7000
p2_1	-0.16135	0.09126	-1.768	0.0836	0.0078	0.9099	0.4270
qIMF	-26.82999	14.49521	-1.851	0.0705	0.0196	0.0901	1.0000
qIMF2	37.84778	20.77506	1.822	0.0749	0.0233	0.0732	1.0000
rFedfund_1	0.12024	0.04918	2.445	0.0183	0.1545	0.0377	0.7000
d911	2.40474	0.50511	4.761	0.0000	1.0000	0.0000	0.4000

\*\*\* Warning: OLS - W'W is singular.

Final model 2

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-34.81958	11.79876	-2.951	0.0050	0.0102	0.0061	1.0000
relResInvNE1_1	0.64861	0.09667	6.710	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.13305	0.07649	-1.740	0.0886	0.0119	0.2974	0.7000
w	30.82625	5.42927	5.678	0.0000	0.0002	0.0000	1.0000
w2	-3.72756	0.64624	-5.768	0.0000	0.0004	0.0000	1.0000
p	0.83153	0.32965	2.522	0.0152	0.1237	0.0004	1.0000
qIMF	-26.95264	15.66857	-1.720	0.0921	0.0033	0.8946	0.4316
qIMF_1	-30.13545	15.96870	-1.887	0.0655	0.8299	0.0000	0.4510
qIMF2	42.92582	23.46548	1.829	0.0738	0.0020	0.7226	0.4832
qIMF2_1	42.85666	24.39336	1.757	0.0856	0.8581	0.0001	0.4426
Trend	-0.18019	0.05730	-3.144	0.0029	0.0085	0.1267	0.7000
d911	1.95753	0.53086	3.687	0.0006	1.0000	0.0001	0.4000

RSS	9.81591	sigma	0.45700	R^2	0.98418	Radj^2	0.98082
LogLik	51.51670	AIC	-1.39713	HQ	-1.24491	SC	-1.00635
T	58	p	11	FpNull	0.00000	FpGUM	0.58273

	value	prob
Chow(1995:3)	1.8766	0.0786
Chow(2001:2)	1.9720	0.1027
normality test	0.8371	0.6580
AR 1-4 test	0.3913	0.8137
ARCH 1-4 test	1.8557	0.1378
hetero test	30.3641	0.0238

\*\*\* Warning: OLS - W'W is singular.

RSS	9.88683	sigma	0.46361	R^2	0.98407	Radj^2	0.98026
LogLik	51.30794	AIC	-1.35545	HQ	-1.18939	SC	-0.92915
T	58	p	12	FpNull	0.00000	FpGUM	0.48833

	value	prob
Chow(1995:3)	1.5220	0.1779
Chow(2001:2)	1.7125	0.1534
normality test	1.3493	0.5093
AR 1-4 test	0.4506	0.7714
ARCH 1-4 test	2.3070	0.0757
hetero test	21.9871	0.2326

Final model 5

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-36.00266	10.34512	-3.480	0.0011	0.0052	0.0008	1.0000
relResInvNE1_1	0.68768	0.08637	7.962	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.15796	0.07450	-2.120	0.0392	0.0151	0.2452	0.7000
w	29.43791	4.96337	5.931	0.0000	0.0016	0.0000	1.0000
w2	-3.54970	0.61229	-5.797	0.0000	0.0025	0.0000	1.0000
p	0.82446	0.33329	2.474	0.0170	0.1742	0.0006	0.7000
qIMF_1	-43.59542	14.53857	-2.999	0.0043	0.1331	0.0000	0.7000
qIMF2_1	65.09753	21.62737	3.010	0.0042	0.1098	0.0000	1.0000
Trend	-0.16618	0.05617	-2.959	0.0048	0.0295	0.2363	0.7000
d911	1.78250	0.52369	3.404	0.0014	1.0000	0.0000	0.4000

\*\*\* Warning: OLS - W'W is singular.

Final model 3

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-60.03864	10.19264	-5.890	0.0000	0.0000	0.0000	1.0000
relResInvNE1_1	0.72471	0.09215	7.865	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.16831	0.07748	-2.172	0.0349	0.0095	0.3907	0.7000
w	26.88560	4.95055	5.431	0.0000	0.0000	0.0000	1.0000
w2	-2.91969	0.54597	-5.348	0.0000	0.0000	0.0000	1.0000
p	1.23247	0.52031	2.369	0.0220	0.0069	0.1507	0.7000
p2_1	-0.16040	0.09051	-1.772	0.0828	0.0069	0.9334	0.4200
qIMF	-26.17467	14.46246	-1.810	0.0767	0.0209	0.0956	1.0000
qIMF2	36.90283	20.74881	1.779	0.0818	0.0245	0.0785	1.0000
rFedfund_1	0.12380	0.04870	2.542	0.0144	0.1541	0.0370	0.7000
d911	2.40557	0.50470	4.766	0.0000	1.0000	0.0000	0.4000

RSS	10.66042	sigma	0.47127	R^2	0.98282	Radj^2	0.97960
LogLik	49.12325	AIC	-1.34908	HQ	-1.21070	SC	-0.99383
T	58	p	10	FpNull	0.00000	FpGUM	0.39710

	value	prob
Chow(1995:3)	1.7711	0.0945
Chow(2001:2)	0.9476	0.4603
normality test	1.4970	0.4731
AR 1-4 test	0.5227	0.7195
ARCH 1-4 test	3.5248	0.0148

hetero test 22.1834 0.1031

Summary of testimation

	RSS	p	R^2	Radj^2	LogLik	AIC	HQ	SC
→ HK								
Model 1	9.8764	12	0.9841	0.9803	51.338	-1.3565	-1.1904	-0.9302
→0423								
Model 2	9.8868	12	0.9841	0.9803	51.308	-1.3554	-1.1894	-0.9291
→0255								
Model 3	9.801	11	0.9842	0.9808	51.561	-1.3986	-1.2464	-1.0079
→1459								
Model 4	9.8159	11	0.9842	0.9808	51.517	-1.3971	-1.2449	-1.0064
→1447								
Model 5	10.66	10	0.9828	0.9796	49.123	-1.3491	-1.2107	-0.9938
→1237								

AIC is minimized by model 3  
 HQ is minimized by model 3  
 SC is minimized by model 3  
 HK is minimized by model 3

\*\*\* Warning: OLS - W'W is singular.

Specific model of relResInvNEL, 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-60.03864	10.19264	-5.890	0.0000	0.0000	0.0000	1.0000
relResInvNEL_1	0.72471	0.09215	7.865	0.0000	0.0000	0.0000	1.0000
relResInvNEL_4	-0.16831	0.07748	-2.172	0.0349	0.0095	0.3907	0.7000
w	26.88560	4.95055	5.431	0.0000	0.0000	0.0000	1.0000
w2	-2.91969	0.54597	-5.348	0.0000	0.0000	0.0000	1.0000
p	1.23247	0.52031	2.369	0.0220	0.0069	0.1507	0.7000
p2_1	-0.16040	0.09051	-1.772	0.0828	0.0069	0.9334	0.4200
qIMF	-26.17467	14.46246	-1.810	0.0767	0.0209	0.0956	1.0000
qIMF2	36.90283	20.74881	1.779	0.0818	0.0245	0.0785	1.0000
rFedfund_1	0.12380	0.04870	2.542	0.0144	0.1541	0.0370	0.7000
d911	2.40557	0.50470	4.766	0.0000	1.0000	0.0000	0.4000

	RSS	sigma	R^2	Radj^2	LogLik	AIC	HQ	SC
	9.80100	0.45665	0.98421	0.98085	51.56079	-1.39865	-1.24643	-1.00787
T	58	p	11	FpNull	0.00000	FpGUM	0.58769	

	value	prob
Chow(1995:3)	1.8397	0.0852
Chow(2001:2)	1.9968	0.0989
normality test	0.9526	0.6211
AR 1-4 test	0.3764	0.8242
ARCH 1-4 test	1.8376	0.1412
hetero test	30.0091	0.0263

Dynamic analysis

Lag structure

	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4	Sum	LongRun
relResInvNEL	0	0.7247	0	0	-0.1683	0.5564	1.0000
SE	0	0.0921	0	0	0.0775	0.0913	
w	26.8856	0	0	0	0	26.8856	60.6089
SE	4.9506	0	0	0	0	4.9506	5.3959
w2	-2.9197	0	0	0	0	-2.9197	-6.5819
SE	0.5460	0	0	0	0	0.5460	0.5575
p	1.2325	0	0	0	0	1.2325	2.7784
SE	0.5203	0	0	0	0	0.5203	1.4257

p2	0	-0.1604	0	0	0	-0.1604	-0.3616		
SE	0	0.0905	0	0	0	0.0905	0.2219		
qIMF	-26.1747	0	0	0	0	-26.1747	-59.0062		
SE	14.4625	0	0	0	0	14.4625	32.3839		
qIMF2	36.9028	0	0	0	0	36.9028	83.1910		
SE	20.7488	0	0	0	0	20.7488	46.7295		
rFedfund	0	0.1238	0	0	0	0.1238	0.2791		
SE	0	0.0487	0	0	0	0.0487	0.1052		
d911	2.4056	0	0	0	0	2.4056	5.4229		
SE	0.5047	0	0	0	0	0.5047	1.4843		
Constant	-60.0386	0	0	0	0	-60.0386	-135.3466		
SE	10.1926	0	0	0	0	10.1926	11.8967		

Roots of the autoregressive dynamics

real	imag	modulus
0.683899	0.361374	0.773505
0.683899	-0.361374	0.773505
-0.321543	0.421796	0.530379
-0.321543	-0.421796	0.530379

GUM( 2) Modelling relResInvNEL by GETS (using PrInv.in7), 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob
Constant	-55.90238	22.10776	-2.529	0.0163
relResInvNEL_1	0.77077	0.16123	4.781	0.0000
relResInvNEL_2	-0.30996	0.20537	-1.509	0.1405
relResInvNEL_3	0.28534	0.22405	1.274	0.2115
relResInvNEL_4	-0.36111	0.22158	-1.630	0.1124
relResInvNEL_5	0.11416	0.15169	0.753	0.4569
w	13.49421	32.81034	0.411	0.6834
w_1	17.89515	34.56534	0.518	0.6080
w2	-2.01695	3.46010	-0.583	0.5638
w2_1	-1.61236	3.63526	-0.444	0.6602
p	-5.48115	7.54539	-0.726	0.4726
p_1	12.39253	9.38204	1.321	0.1954
p2	1.15614	1.29927	0.890	0.3798
p2_1	-2.26586	1.65187	-1.372	0.1791
qIMF	-35.70234	18.42927	-1.937	0.0611
qIMF_1	-23.04545	19.67452	-1.171	0.2496
qIMF2	49.64681	27.59872	1.799	0.0809
qIMF2_1	35.44323	29.60924	1.197	0.2396
r10y	0.06054	0.47962	0.126	0.9003
r10y_1	0.16109	0.48315	0.333	0.7409
r10y2	-0.01043	0.06460	-0.161	0.8727
r10y2_1	-0.01528	0.06641	-0.230	0.8194
Trend	-0.11137	0.08004	-1.391	0.1731
d911	1.98464	0.66805	2.971	0.0054

	RSS	sigma	R^2	Radj^2	LogLik	AIC	HQ	SC
	7.76556	0.47791	0.98749	0.97902	58.31157	-1.18316	-1.18316	-0.33056
T	58	p	24	FpNull	0.00000	FpConst	0.00000	

	value	prob	alpha
Chow(1995:3)	4.3534	0.0366	0.0050
Chow(2001:2)	1.4647	0.2316	0.0100
normality test	0.3915	0.8222	0.0100
AR 1-4 test	0.3901	0.8140	0.0100
ARCH 1-4 test	1.2310	0.3221	0.0100
hetero test	39.8877	0.3429	0.0100

Significance levels (alpha) set for subsequent tests.

\*\*\* Warning: OLS - W'W is singular.

Specific model of relResInvNEL, 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-66.31812	16.07715	-4.125	0.0002	0.0147	0.0006	1.0000
relResInvNEL_1	0.77712	0.13021	5.968	0.0000	0.0000	0.0002	1.0000

relResInvNE1_2	-0.32655	0.16509	-1.978	0.0542	0.8775	0.1561	0.1368
relResInvNE1_3	0.38348	0.16940	2.264	0.0286	0.8415	0.0259	0.4476
relResInvNE1_4	-0.33499	0.11847	-2.828	0.0070	0.0288	0.0042	1.0000
w_1	31.87798	5.49839	5.798	0.0000	0.0035	0.0000	1.0000
w2_1	-3.71534	0.65051	-5.711	0.0000	0.0068	0.0000	1.0000
p_1	14.12190	6.05559	2.332	0.0243	0.8383	0.0054	0.4485
p2	0.20299	0.09439	2.151	0.0370	0.0036	0.2281	0.7000
p2_1	-2.56666	1.03364	-2.483	0.0169	0.9599	0.0063	0.4120
qIMF	-46.22153	14.28377	-3.236	0.0023	0.0028	0.0506	1.0000
qIMF2	67.04038	20.92964	3.203	0.0025	0.0028	0.0492	1.0000
Trend	-0.12589	0.06017	-2.092	0.0422	0.1423	0.8478	0.1457
d911	1.99062	0.49943	3.986	0.0002	1.0000	0.0000	0.4000

RSS	8.94267	sigma	0.45082	R^2	0.98559	Radj^2	0.98133
LogLik	54.21866	AIC	-1.38685	HQ	-1.19312	SC	-0.88950
T	58	p	14	FpNull	0.00000	FpGUM	0.86722

	value	prob
Chow(1995:3)	1.2582	0.3207
Chow(2001:2)	2.0530	0.0924
normality test	1.3661	0.5051
AR 1-4 test	1.2311	0.3131
ARCH 1-4 test	0.3572	0.8373
hetero test	17.8619	0.7141

relResInvNE1_1	0.74138	0.15628	4.744	0.0000
relResInvNE1_2	-0.27279	0.19595	-1.392	0.1729
relResInvNE1_3	0.22184	0.22737	0.976	0.3361
relResInvNE1_4	-0.30804	0.22444	-1.373	0.1789
relResInvNE1_5	0.13824	0.14554	0.950	0.3489
w	17.37633	32.78536	0.530	0.5996
w_1	12.59810	34.73868	0.363	0.7191
w2	-2.43799	3.44520	-0.708	0.4840
w2_1	-0.99957	3.63767	-0.275	0.7851
p	-6.26397	7.50013	-0.835	0.4094
p_1	8.16447	9.78141	0.835	0.4097
p2	1.28773	1.29372	0.995	0.3266
p2_1	-1.47207	1.73067	-0.851	0.4010
qIMF	-34.50006	17.78641	-1.940	0.0608
qIMF_1	-25.10394	19.53408	-1.285	0.2074
qIMF2	48.99232	26.44741	1.852	0.0727
qIMF2_1	37.58749	29.28422	1.284	0.2080
r30y	0.39455	0.44671	0.883	0.3833
r30y_1	0.42070	0.47404	0.887	0.3811
r30y2	-0.04940	0.05583	-0.885	0.3825
r30y2_1	-0.04530	0.06131	-0.739	0.4650
Trend	-0.09739	0.07434	-1.310	0.1989
d911	2.09170	0.60297	3.469	0.0014

RSS	7.51146	sigma	0.47003	R^2	0.98790	Radj^2	0.97971
LogLik	59.27640	AIC	-1.21643	HQ	-0.88432	SC	-0.36383
T	58	p	24	FpNull	0.00000	FpConst	0.00000

Dynamic analysis

Lag structure

	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4	Sum	LongRun
relResInvNE1	0	0.7771	-0.3266	0.3835	-0.3350	0.4991	1.0000
SE	0	0.1302	0.1651	0.1694	0.1185	0.0980	
w	0	31.8780	0	0	0	31.8780	63.6352
SE	0	5.4984	0	0	0	5.4984	4.6343
w2	0	-3.7153	0	0	0	-3.7153	-7.4166
SE	0	0.6505	0	0	0	0.6505	0.5402
p	0	14.1219	0	0	0	14.1219	28.1903
SE	0	6.0556	0	0	0	6.0556	11.4586
p2	0.2030	-2.5667	0	0	0	-2.3637	-4.7184
SE	0.0944	1.0336	0	0	0	1.0526	1.9786
qIMF	-46.2215	0	0	0	0	-46.2215	-92.2680
SE	14.2838	0	0	0	0	14.2838	27.5055
qIMF2	67.0404	0	0	0	0	67.0404	133.8268
SE	20.9296	0	0	0	0	20.9296	40.6318
d911	1.9906	0	0	0	0	1.9906	3.9737
SE	0.4994	0	0	0	0	0.4994	1.2323
Constant	-66.3181	0	0	0	0	-66.3181	-132.3850
SE	16.0772	0	0	0	0	16.0772	24.7140
Trend	-0.1259	0	0	0	0	-0.1259	-0.2513
SE	0.0602	0	0	0	0	0.0602	0.1151

Roots of the autoregressive dynamics

	real	imag	modulus
0.690255	-0.370307	0.783313	
0.690255	0.370307	0.783313	
-0.301697	-0.674494	0.738893	
-0.301697	0.674494	0.738893	

Roots of the distributed lag polynomial in p2

real	-12.644167
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GUM( 3) Modelling relResInvNE1 by GETS (using PrInv.in7), 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob
Constant	-49.49025	23.79576	-2.080	0.0452

	value	prob	alpha
Chow(1995:3)	4.0773	0.0428	0.0050
Chow(2001:2)	1.5019	0.2199	0.0100
normality test	0.8299	0.6604	0.0100
AR 1-4 test	0.7302	0.5785	0.0100
ARCH 1-4 test	1.0062	0.4223	0.0100
hetero test	37.5364	0.4445	0.0100

Significance levels (alpha) set for subsequent tests.

\*\*\* Warning: OLS - W'W is singular.

Final model 1

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-33.72100	11.85985	-2.843	0.0066	0.0120	0.0120	1.0000
relResInvNE1_1	0.65110	0.09676	6.729	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.13332	0.07644	-1.744	0.0878	0.0108	0.3726	0.7000
w	30.76260	5.42798	5.667	0.0000	0.0002	0.0000	1.0000
w2	-3.71611	0.64604	-5.752	0.0000	0.0003	0.0000	1.0000
p2	0.14435	0.05698	2.533	0.0148	0.1094	0.0003	1.0000
qIMF	-27.09936	15.65847	-1.731	0.0902	0.0031	0.8595	0.4421
qIMF_1	-30.31039	15.96356	-1.899	0.0639	0.8235	0.0000	0.4530
qIMF2	43.10905	23.45205	1.838	0.0725	0.0018	0.6854	0.4944
qIMF2_1	43.10436	24.38325	1.768	0.0837	0.8527	0.0001	0.4442
Trend	-0.17846	0.05714	-3.123	0.0031	0.0079	0.1116	1.0000
d911	1.95759	0.53057	3.690	0.0006	1.0000	0.0001	0.4000

RSS	9.87644	sigma	0.46336	R^2	0.98409	Radj^2	0.98028
LogLik	51.33842	AIC	-1.35650	HQ	-1.19045	SC	-0.93020
T	58	p	12	FpNull	0.00000	FpGUM	0.56322

	value	prob
Chow(1995:3)	1.5562	0.1653
Chow(2001:2)	1.7037	0.1554
normality test	1.4185	0.4920
AR 1-4 test	0.4754	0.7535
ARCH 1-4 test	2.2681	0.0798
hetero test	22.3726	0.2159

\*\*\* Warning: OLS - W'W is singular.

Final model 2

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-40.91884	11.84558	-3.454	0.0012	0.0027	0.0005	1.0000
relResInvNE1_1	0.60985	0.08254	7.388	0.0000	0.0000	0.0000	1.0000
w	25.74797	4.86844	5.289	0.0000	0.0368	0.0000	1.0000
w2	-2.95956	0.56553	-5.233	0.0000	0.0680	0.0000	1.0000
p2	0.18327	0.05928	3.092	0.0034	0.1414	0.0014	0.7000
qIMF	-45.06849	13.53696	-3.329	0.0017	0.0086	0.0088	1.0000
qIMF2	66.42074	19.86425	3.344	0.0017	0.0070	0.0076	1.0000
r30y	0.67010	0.30575	2.192	0.0335	0.2529	0.0180	0.7000
r30y_1	0.13462	0.06093	2.209	0.0322	0.0141	0.3887	0.7000
r30y2	-0.08852	0.04168	-2.124	0.0391	0.3459	0.0171	0.7000
Trend	-0.09052	0.05249	-1.724	0.0913	0.4642	0.8333	0.1500
d911	2.58099	0.49002	5.267	0.0000	1.0000	0.0000	0.4000

  

	RSS	sigma	R^2	Radj^2	LogLik	AIC	HQ	SC
RSS	9.26576	0.44881	0.98507	0.98150	53.18940	-1.42032	-1.20969	-0.90607
LogLik	53.18940	0.44881	0.98507	0.98150	53.18940	-1.42032	-1.20969	-0.90607
T	58	0.44881	0.98507	0.98150	53.18940	-1.42032	-1.20969	-0.90607

relResInvNE1_3	0.28454	0.16587	1.715	0.0933	0.1858	0.0302	0.7000
relResInvNE1_4	-0.25316	0.11388	-2.223	0.0314	0.4489	0.0168	0.7000
w	30.07774	5.10697	5.890	0.0000	0.0000	0.0000	1.0000
w2	-3.58393	0.61125	-5.863	0.0000	0.0000	0.0000	1.0000
p1	11.76712	5.86453	2.006	0.0510	0.3296	0.0208	0.7000
p2	0.18718	0.09335	2.005	0.0511	0.0014	0.5056	0.5483
p2_1	-2.14804	1.00073	-2.146	0.0374	0.4258	0.0259	0.7000
qIMF	-45.94700	14.15343	-3.246	0.0022	0.0007	0.0107	1.0000
qIMF2	66.98945	20.65400	3.243	0.0023	0.0006	0.0085	1.0000
Trend	-0.14590	0.05928	-2.461	0.0178	0.0033	0.3804	0.7000
d911	2.12246	0.49846	4.258	0.0001	1.0000	0.0000	0.4000

  

	RSS	sigma	R^2	Radj^2	LogLik	AIC	HQ	SC
RSS	8.79576	0.44711	0.98507	0.98150	54.69904	-1.40342	-1.20969	-0.90607
LogLik	54.69904	0.44711	0.98507	0.98150	54.69904	-1.40342	-1.20969	-0.90607
T	58	0.44711	0.98507	0.98150	54.69904	-1.40342	-1.20969	-0.90607

	value	prob
Chow(1995:3)	0.8901	0.6185
Chow(2001:2)	2.2951	0.0628
normality test	0.1784	0.9147
AR 1-4 test	0.8469	0.5035
ARCH 1-4 test	0.7644	0.5551
hetero test	20.5439	0.3030

\*\*\* Warning: OLS - W'W is singular.

Final model 3

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-34.81958	11.79876	-2.951	0.0050	0.0102	0.0061	1.0000
relResInvNE1_1	0.64861	0.09667	6.710	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.13305	0.07649	-1.740	0.0886	0.0119	0.2974	0.7000
w	30.82625	5.42927	5.678	0.0000	0.0002	0.0000	1.0000
w2	-3.72756	0.64624	-5.768	0.0000	0.0004	0.0000	1.0000
p	0.83153	0.32965	2.522	0.0152	0.1237	0.0004	1.0000
qIMF	-26.95264	15.66857	-1.720	0.0921	0.0033	0.8946	0.4316
qIMF_1	-30.13545	15.96870	-1.887	0.0655	0.8299	0.0000	0.4510
qIMF2	42.92582	23.46548	1.829	0.0738	0.0020	0.7226	0.4832
qIMF2_1	42.85666	24.39336	1.757	0.0856	0.8581	0.0001	0.4426
Trend	-0.18019	0.05730	-3.144	0.0029	0.0085	0.1267	0.7000
d911	1.95753	0.53086	3.687	0.0006	1.0000	0.0001	0.4000

  

	RSS	sigma	R^2	Radj^2	LogLik	AIC	HQ	SC
RSS	9.88683	0.46361	0.98407	0.98026	51.30794	-1.35545	-1.1904	-0.9302
LogLik	51.30794	0.46361	0.98407	0.98026	51.30794	-1.35545	-1.1904	-0.9302
T	58	0.46361	0.98407	0.98026	51.30794	-1.35545	-1.1904	-0.9302

	value	prob
Chow(1995:3)	1.5220	0.1779
Chow(2001:2)	1.7125	0.1534
normality test	1.3493	0.5093
AR 1-4 test	0.4506	0.7714
ARCH 1-4 test	2.3070	0.0757
hetero test	21.9871	0.2326

\*\*\* Warning: OLS - W'W is singular.

Final model 4

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-55.22360	14.76689	-3.740	0.0005	0.2299	0.0023	0.7000
relResInvNE1_1	0.77111	0.12925	5.966	0.0000	0.0000	0.0001	1.0000
relResInvNE1_2	-0.28376	0.16310	-1.740	0.0889	0.5654	0.1306	0.2304

Summary of testimation

	RSS	p	R^2	Radj^2	LogLik	AIC	HQ	SC
Model 1	9.8764	12	0.9841	0.9803	51.338	-1.3565	-1.1904	-0.9302
Model 2	9.2658	12	0.9851	0.9815	53.189	-1.4203	-1.2543	-0.9940
Model 3	9.8868	12	0.9841	0.9803	51.308	-1.3554	-1.1894	-0.9291
Model 4	8.7958	14	0.9858	0.9816	54.699	-1.4034	-1.2097	-0.9061

\*\*\* Warning: OLS - W'W is singular.

Specific model of relResInvNE1, 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	-40.91884	11.84558	-3.454	0.0012	0.0027	0.0005	1.0000
relResInvNE1_1	0.60985	0.08254	7.388	0.0000	0.0000	0.0000	1.0000
w	25.74797	4.86844	5.289	0.0000	0.0368	0.0000	1.0000
w2	-2.95956	0.56553	-5.233	0.0000	0.0680	0.0000	1.0000
p2	0.18327	0.05928	3.092	0.0034	0.1414	0.0014	0.7000
qIMF	-45.06849	13.53696	-3.329	0.0017	0.0086	0.0088	1.0000
qIMF2	66.42074	19.86425	3.344	0.0017	0.0070	0.0076	1.0000
r30y	0.67010	0.30575	2.192	0.0335	0.2529	0.0180	0.7000
r30y_1	0.13462	0.06093	2.209	0.0322	0.0141	0.3887	0.7000
r30y2	-0.08852	0.04168	-2.124	0.0391	0.3459	0.0171	0.7000
Trend	-0.09052	0.05249	-1.724	0.0913	0.4642	0.8333	0.1500
d911	2.58099	0.49002	5.267	0.0000	1.0000	0.0000	0.4000

  

	RSS	sigma	R^2	Radj^2	LogLik	AIC	HQ	SC
RSS	9.26576	0.44881	0.98507	0.98150	53.18940	-1.42032	-1.20969	-0.90607
LogLik	53.18940	0.44881	0.98507	0.98150	53.18940	-1.42032	-1.20969	-0.90607
T	58	0.44881	0.98507	0.98150	53.18940	-1.42032	-1.20969	-0.90607

	value	prob
Chow(1995:3)	0.8901	0.6185
Chow(2001:2)	2.2951	0.0628
normality test	0.1784	0.9147

AR 1-4 test 0.8469 0.5035  
 ARCH 1-4 test 0.7644 0.5551  
 hetero test 20.5439 0.3030

d911 1.72671 0.58849 2.934 0.0060  
 RSS 7.26102 sigma 0.46212 R^2 0.98830 Radj^2 0.98039  
 LogLik 60.25977 AIC -1.25034 HQ -0.91823 SC -0.39774  
 T 58 p 24 FpNull 0.00000 FpConst 0.00000

Dynamic analysis

value prob alpha  
 Chow(1995:3) 4.2064 0.0397 0.0050  
 Chow(2001:2) 1.7623 0.1521 0.0100  
 normality test 3.0199 0.2209 0.0100  
 AR 1-4 test 0.1835 0.9452 0.0100  
 ARCH 1-4 test 0.5099 0.7289 0.0100  
 hetero test 45.1897 0.1670 0.0100

Lag structure

	Lag 0	Lag 1	Sum	LongRun
relResInvNE1	0	0.6099	0.6099	1.0000
SE	0	0.0825	0.0825	
w	25.7480	0	25.7480	65.9954
SE	4.8684	0	4.8684	5.3348
w2	-2.9596	0	-2.9596	-7.5857
SE	0.5655	0	0.5655	0.6581
p2	0.1833	0	0.1833	0.4698
SE	0.0593	0	0.0593	0.1998
qIMF	-45.0685	0	-45.0685	-115.5164
SE	13.5370	0	13.5370	30.6536
qIMF2	66.4207	0	66.4207	170.2450
SE	19.8642	0	19.8642	45.9357
r30y	0.6701	0.1346	0.8047	2.0626
SE	0.3057	0.0609	0.3077	0.8532
r30y2	-0.0885	0	-0.0885	-0.2269
SE	0.0417	0	0.0417	0.1103
d911	2.5810	0	2.5810	6.6154
SE	0.4900	0	0.4900	1.7024
Constant	-40.9188	0	-40.9188	-104.8803
SE	11.8456	0	11.8456	23.7990
Trend	-0.0905	0	-0.0905	-0.2320
SE	0.0525	0	0.0525	0.1346

Significance levels (alpha) set for subsequent tests.

\*\*\* Warning: OLS - W'W is singular.

Final model 1

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1693.12352	465.47283	3.637	0.0007	0.0267	0.0001	1.0000
relResInvNE1_1	0.86637	0.12137	7.138	0.0000	0.0000	0.0001	1.0000
relResInvNE1_2	-0.28624	0.11755	-2.435	0.0189	0.0455	0.1023	1.0000
w	30.90643	5.59061	5.528	0.0000	0.0056	0.0000	1.0000
w2	-3.89450	0.70618	-5.515	0.0000	0.0071	0.0000	1.0000
p_1	9.82363	5.79048	1.697	0.0967	0.8898	0.0265	0.4331
p2	0.32196	0.09356	3.441	0.0013	0.0011	0.0321	1.0000
p2_1	-1.93840	0.98807	-1.962	0.0560	0.6744	0.0236	0.4977
qFRB	-755.11235	203.61990	-3.708	0.0006	0.0280	0.0000	1.0000
qFRB_1	-7.61103	3.69027	-2.062	0.0450	0.0009	0.8783	0.4365
qFRB2	83.84311	22.44627	3.735	0.0005	0.0270	0.0000	1.0000
Trend	-0.28291	0.07762	-3.645	0.0007	0.0430	0.0332	1.0000
d911	1.91255	0.49597	3.856	0.0004	1.0000	0.0000	0.4000

Roots of the autoregressive dynamics

real  
0.609852

RSS 8.99064 sigma 0.44698 R^2 0.98551 Radj^2 0.98165  
 LogLik 54.06350 AIC -1.41598 HQ -1.23609 SC -0.95416  
 T 58 p 13 FpNull 0.00000 FpGUM 0.69693

Roots of the distributed lag polynomial in r30y

real  
0.200902

value prob  
 Chow(1995:3) 1.1117 0.4192  
 Chow(2001:2) 2.9890 0.0220  
 normality test 1.6681 0.4343  
 AR 1-4 test 0.3115 0.8686  
 ARCH 1-4 test 1.0385 0.4005  
 hetero test 31.0308 0.0548

GUM( 4) Modelling relResInvNE1 by GETS (using PrInv.in7), 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob
Constant	2169.18734	847.61465	2.559	0.0151
relResInvNE1_1	0.85262	0.16670	5.115	0.0000
relResInvNE1_2	-0.30632	0.18606	-1.646	0.1089
relResInvNE1_3	0.09651	0.21370	0.452	0.6544
relResInvNE1_4	-0.31280	0.22411	-1.396	0.1718
relResInvNE1_5	0.16495	0.14161	1.165	0.2522
w	42.04060	40.86606	1.029	0.3109
w_1	-4.47851	39.96023	-0.112	0.9114
w2	-4.73129	4.27090	-1.108	0.2757
w2_1	0.05155	4.13515	0.012	0.9901
p	-1.68059	7.08544	-0.237	0.8139
p_1	9.78549	7.29608	1.341	0.1887
p2	0.55233	1.22458	0.451	0.6548
p2_1	-1.84308	1.24648	-1.479	0.1484
qFRB	-531.99469	279.52839	-1.903	0.0655
qFRB_1	-444.18324	334.53979	-1.328	0.1931
qFRB2	59.01207	30.84118	1.913	0.0641
qFRB2_1	48.33158	36.98041	1.307	0.2000
rFedfund	-0.05441	0.13052	-0.417	0.6794
rFedfund_1	0.10933	0.17972	0.608	0.5470
rFedfund2	0.02213	0.02612	0.847	0.4028
rFedfund2_1	-0.00649	0.03790	-0.171	0.8651
Trend	-0.30996	0.13132	-2.360	0.0241

\*\*\* Warning: OLS - W'W is singular.

Final model 2

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1681.31724	464.97050	3.616	0.0008	0.0282	0.0001	1.0000
relResInvNE1_1	0.86672	0.12143	7.137	0.0000	0.0000	0.0001	1.0000
relResInvNE1_2	-0.28583	0.11760	-2.431	0.0191	0.0450	0.1041	1.0000
w	30.80652	5.59852	5.503	0.0000	0.0058	0.0000	1.0000
w2	-3.88089	0.70691	-5.490	0.0000	0.0073	0.0000	1.0000
p_1	9.83915	5.79309	1.698	0.0963	0.8961	0.0264	0.4312
p2	0.32111	0.09358	3.432	0.0013	0.0011	0.0320	1.0000
p2_1	-1.94088	0.98854	-1.963	0.0558	0.6798	0.0236	0.4961
qFRB	-757.52203	203.87438	-3.716	0.0006	0.0269	0.0000	1.0000
qFRB2	84.10481	22.47573	3.742	0.0005	0.0260	0.0000	1.0000
qFRB2_1	-0.83573	0.40764	-2.050	0.0462	0.0009	0.9073	0.4278
Trend	-0.28140	0.07761	-3.626	0.0007	0.0436	0.0336	1.0000
d911	1.91671	0.49645	3.861	0.0004	1.0000	0.0000	0.4000

RSS 8.99988 sigma 0.44721 R^2 0.98550 Radj^2 0.98163  
 LogLik 54.03371 AIC -1.41496 HQ -1.23507 SC -0.95313

T	58	p	13	FpNull	0.00000	FpGUM	0.69338
		value	prob				
Chow(1995:3)		1.1152	0.4164				
Chow(2001:2)		2.9923	0.0219				
normality test		1.6473	0.4388				
AR 1-4 test		0.3126	0.8679				
ARCH 1-4 test		1.0361	0.4017				
hetero test		30.9937	0.0553				

\*\*\* Warning: OLS - W'W is singular.

Final model 3

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1026.73177	500.36704	2.052	0.0460	0.0725	0.0107	1.0000
relResInvNE1_1	0.72200	0.08753	8.248	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.16931	0.07649	-2.213	0.0320	0.0106	0.3607	0.7000
w	26.97203	5.36279	5.029	0.0000	0.0004	0.0000	1.0000
w2	-3.24829	0.68002	-4.777	0.0000	0.0007	0.0000	1.0000
p2	0.23496	0.09694	2.424	0.0194	0.0058	0.0672	1.0000
p2_1	-0.16951	0.08908	-1.903	0.0635	0.0004	0.7875	0.4637
qFRB	-458.88110	218.05356	-2.104	0.0410	0.0723	0.0053	1.0000
qFRB_1	-6.51425	3.72105	-1.751	0.0868	0.0014	0.8545	0.4437
qFRB2	50.83952	24.04849	2.114	0.0401	0.0706	0.0051	1.0000
rFedfund_1	0.10852	0.05735	1.892	0.0649	0.0547	0.2390	0.7000
Trend	-0.15506	0.08684	-1.786	0.0809	0.0294	0.3683	0.7000
d911	2.23968	0.51135	4.380	0.0001	1.0000	0.0000	0.4000

RSS	9.12022	sigma	0.45019	R^2	0.98530	Radj^2	0.98139
LogLik	53.64853	AIC	-1.40167	HQ	-1.22178	SC	-0.93985
T	58	p	13	FpNull	0.00000	FpGUM	0.64693

		value	prob
Chow(1995:3)		1.5859	0.1612
Chow(2001:2)		1.6383	0.1722
normality test		2.0268	0.3630
AR 1-4 test		0.7304	0.5764
ARCH 1-4 test		1.9466	0.1232
hetero test		33.1818	0.0442

\*\*\* Warning: OLS - W'W is singular.

Final model 4

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1022.65244	502.93769	2.033	0.0479	0.0692	0.0102	1.0000
relResInvNE1_1	0.72256	0.08853	8.162	0.0000	0.0000	0.0000	1.0000
relResInvNE1_4	-0.16890	0.07691	-2.196	0.0333	0.0091	0.3738	0.7000
w	26.86129	5.40041	4.974	0.0000	0.0003	0.0000	1.0000
w2	-3.23225	0.68498	-4.719	0.0000	0.0004	0.0000	1.0000
p_1	-0.93245	0.52762	-1.767	0.0840	0.0004	0.9767	0.4070
p2	0.22865	0.09868	2.317	0.0251	0.0047	0.1033	1.0000
qFRB	-456.50286	219.15275	-2.083	0.0430	0.0695	0.0050	1.0000
qFRB_1	-6.44616	3.74531	-1.721	0.0921	0.0013	0.8339	0.4498
qFRB2	50.55936	24.16944	2.092	0.0421	0.0677	0.0049	1.0000
rFedfund_1	0.11030	0.05762	1.914	0.0620	0.0492	0.2423	0.7000
Trend	-0.15306	0.08733	-1.753	0.0865	0.0212	0.3571	0.7000
d911	2.24370	0.51396	4.366	0.0001	1.0000	0.0000	0.4000

RSS	9.21453	sigma	0.45251	R^2	0.98515	Radj^2	0.98119
LogLik	53.35017	AIC	-1.39139	HQ	-1.21150	SC	-0.92956
T	58	p	13	FpNull	0.00000	FpGUM	0.61068

		value	prob
Chow(1995:3)		1.6672	0.1362
Chow(2001:2)		1.5754	0.1891
normality test		1.9560	0.3761

AR 1-4 test	0.7099	0.5899
ARCH 1-4 test	2.0468	0.1078
hetero test	33.2611	0.0434

Summary of testimation

	RSS	p	R^2	Radj^2	LogLik	AIC	HQ	SC
Model 1	8.9906	13	0.9855	0.9817	54.064	-1.4160	-1.2361	-0.9542
Model 2	8.9999	13	0.9855	0.9816	54.034	-1.4150	-1.2351	-0.9531
Model 3	9.1202	13	0.9853	0.9814	53.649	-1.4017	-1.2218	-0.9399
Model 4	9.2145	13	0.9852	0.9812	53.35	-1.3914	-1.2115	-0.9296

AIC is minimized by model 1  
 HQ is minimized by model 1  
 SC is minimized by model 1  
 HK is minimized by model 1

\*\*\* Warning: OLS - W'W is singular.

Specific model of relResInvNE1, 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1693.12352	465.47283	3.637	0.0007	0.0267	0.0001	1.0000
relResInvNE1_1	0.86637	0.12137	7.138	0.0000	0.0000	0.0001	1.0000
relResInvNE1_2	-0.28624	0.11755	-2.435	0.0189	0.0455	0.1023	1.0000
w	30.90643	5.59061	5.528	0.0000	0.0056	0.0000	1.0000
w2	-3.89450	0.70618	-5.515	0.0000	0.0071	0.0000	1.0000
p_1	9.82363	5.79048	1.697	0.0967	0.8898	0.0265	0.4331
p2	0.32196	0.09356	3.441	0.0013	0.0011	0.0321	1.0000
p2_1	-1.93840	0.98807	-1.962	0.0560	0.6744	0.0236	0.4977
qFRB	-755.11235	203.61990	-3.708	0.0006	0.0280	0.0000	1.0000
qFRB_1	-7.61103	3.69027	-2.062	0.0450	0.0009	0.8783	0.4365
qFRB2	83.84311	22.44627	3.735	0.0005	0.0270	0.0000	1.0000
Trend	-0.28291	0.07762	-3.645	0.0007	0.0430	0.0332	1.0000
d911	1.91255	0.49597	3.856	0.0004	1.0000	0.0000	0.4000

RSS	8.99064	sigma	0.44698	R^2	0.98551	Radj^2	0.98165
LogLik	54.06350	AIC	-1.41598	HQ	-1.23609	SC	-0.95416
T	58	p	13	FpNull	0.00000	FpGUM	0.69693

		value	prob
Chow(1995:3)		1.1117	0.4192
Chow(2001:2)		2.9890	0.0220
normality test		1.6681	0.4343
AR 1-4 test		0.3115	0.8686
ARCH 1-4 test		1.0385	0.4005
hetero test		31.0308	0.0548

Dynamic analysis

	Lag 0	Lag 1	Lag 2	Sum	LongRun
relResInvNE1	0	0.8664	-0.2862	0.5801	1
SE	0	0.1214	0.1176	0.08554	
w	30.91	0	0	30.91	73.61
SE	5.591	0	0	5.591	9.117
w2	-3.894	0	0	-3.894	-9.275
SE	0.7062	0	0	0.7062	1.114



p	0	9.824	0	9.824	23.4
	SE	0	0	5.79	13.22
p2	0.322	-1.938	0	-1.616	-3.85
	SE	0.09356	0.9881	0	1.005
qFRB	-755.1	-7.611	0	-762.7	-1817
	SE	203.6	3.69	0	204.1
qFRB2	83.84	0	0	83.84	199.7
	SE	22.45	0	0	22.45
d911	1.913	0	0	1.913	4.555
	SE	0.496	0	0	0.496
Constant	1693	0	0	1693	4032
	SE	465.5	0	0	465.5
Trend	-0.2829	0	0	-0.2829	-0.6738
	SE	0.07762	0	0	0.07762

Roots of the autoregressive dynamics

real	imag	modulus
0.433183	-0.313990	0.535012
0.433183	0.313990	0.535012

Roots of the distributed lag polynomial in p2

real
-6.020567

Roots of the distributed lag polynomial in qFRB

real
0.010079

GUM( 5) Modelling relResInvNEL by GETS (using PrInv.in7), 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob
Constant	2127.28090	878.05446	2.423	0.0209
relResInvNEL_1	0.93227	0.15167	6.147	0.0000
relResInvNEL_2	-0.31244	0.20385	-1.533	0.1346
relResInvNEL_3	0.11460	0.22955	0.499	0.6208
relResInvNEL_4	-0.37215	0.22335	-1.666	0.1049
relResInvNEL_5	0.23174	0.15001	1.545	0.1316
w	36.43028	39.87368	0.914	0.3673
w_1	-3.13329	38.62760	-0.081	0.9358
w2	-4.40820	4.15395	-1.061	0.2961
w2_1	0.15591	3.96704	0.039	0.9689
p	-2.92149	7.47774	-0.391	0.6985
p_1	8.69860	9.29632	0.936	0.3560
p2	0.84010	1.28187	0.655	0.5166
p2_1	-1.71135	1.63852	-1.044	0.3036
qFRB	-512.73667	293.77648	-1.745	0.0900
qFRB_1	-438.23864	351.53699	-1.247	0.2211
qFRB2	57.03447	32.41764	1.759	0.0875
qFRB2_1	47.64075	38.86405	1.226	0.2287
r10y	-0.11241	0.47912	-0.235	0.8159
r10y_1	-0.05098	0.48676	-0.105	0.9172
r10y2	0.01382	0.06401	0.216	0.8304
r10y2_1	0.01604	0.06649	0.241	0.8109
Trend	-0.33803	0.13624	-2.481	0.0182
d911	1.51434	0.67682	2.237	0.0319

RSS	7.72043	sigma	0.47652	R^2	0.98756	Radj^2	0.97915
LogLik	58.48061	AIC	-1.18899	HQ	-0.85688	SC	-0.33639
T	58	p	24	FpNull	0.00000	FpConst	0.00000

	value	prob	alpha
Chow(1995:3)	6.2019	0.0151	0.0050
Chow(2001:2)	2.2253	0.0786	0.0100
normality test	2.0887	0.3519	0.0100
AR 1-4 test	0.1829	0.9455	0.0100
ARCH 1-4 test	0.6198	0.6524	0.0100
hetero test	40.8727	0.3042	0.0100

Significance levels (alpha) set for subsequent tests.

\*\*\* Warning: OLS - W'W is singular.

Final model 1

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1166.51461	495.71095	2.353	0.0228	0.0816	0.0008	1.0000
relResInvNEL_1	0.77464	0.08884	8.720	0.0000	0.0000	0.0000	1.0000
relResInvNEL_4	-0.15740	0.07789	-2.021	0.0490	0.0146	0.3291	0.7000
w	28.38271	5.56292	5.102	0.0000	0.0009	0.0000	1.0000
w2	-3.50864	0.70320	-4.990	0.0000	0.0015	0.0000	1.0000
p2	0.29849	0.09357	3.190	0.0025	0.0040	0.0701	1.0000
p2_1	-0.17125	0.08827	-1.940	0.0584	0.0055	0.7912	0.4626
qFRB	-527.62859	217.37311	-2.427	0.0191	0.0752	0.0003	1.0000
qFRB2	58.12984	23.92582	2.430	0.0190	0.0760	0.0003	1.0000
Trend	-0.22693	0.07914	-2.867	0.0062	0.0234	0.1208	1.0000
d911	1.89791	0.51496	3.686	0.0006	1.0000	0.0000	0.4000
RSS	10.42898	sigma	0.47106	R^2	0.98320	Radj^2	0.97962
LogLik	49.75978	AIC	-1.33654	HQ	-1.18433	SC	-0.94577
T	58	p	11	FpNull	0.00000	FpGUM	0.54540

	value	prob
Chow(1995:3)	1.7667	0.1002
Chow(2001:2)	1.7831	0.1372
normality test	1.3473	0.5098
AR 1-4 test	0.6946	0.5998
ARCH 1-4 test	0.8816	0.4839
hetero test	32.2857	0.0139

\*\*\* Warning: OLS - W'W is singular.

Final model 2

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1539.71126	487.41071	3.159	0.0028	0.1092	0.0001	1.0000
relResInvNEL_1	0.89071	0.12797	6.960	0.0000	0.0000	0.0001	1.0000
relResInvNEL_2	-0.23491	0.12273	-1.914	0.0617	0.0804	0.2968	0.7000
w	29.63269	5.73320	5.169	0.0000	0.0007	0.0000	1.0000
w2	-3.63893	0.72227	-5.038	0.0000	0.0013	0.0000	1.0000
p2	0.34009	0.09673	3.516	0.0010	0.0068	0.0344	1.0000
p2_1	-0.21310	0.09499	-2.243	0.0296	0.0018	0.6278	0.5117
qFRB	-693.86125	213.96025	-3.243	0.0022	0.1017	0.0000	1.0000
qFRB2	76.59128	23.55664	3.251	0.0021	0.1025	0.0000	1.0000
Trend	-0.24326	0.08026	-3.031	0.0040	0.0151	0.0678	1.0000
d911	1.83938	0.52214	3.523	0.0010	1.0000	0.0000	0.4000
RSS	10.51538	sigma	0.47300	R^2	0.98306	Radj^2	0.97945
LogLik	49.52051	AIC	-1.32829	HQ	-1.17608	SC	-0.93752
T	58	p	11	FpNull	0.00000	FpGUM	0.51893

	value	prob
Chow(1995:3)	1.1603	0.3741
Chow(2001:2)	1.9053	0.1138
normality test	1.2847	0.5260
AR 1-4 test	0.3869	0.8168
ARCH 1-4 test	0.8662	0.4928
hetero test	29.6828	0.0287

Summary of testimation

	RSS	p	R^2	Radj^2	LogLik	AIC	HQ	SC
Model 1	10.429	11	0.9832	0.9796	49.76	-1.3365	-1.1843	-0.9458
Model 2	10.515	11	0.9831	0.9795	49.521	-1.3283	-1.1761	-0.9375

AIC is minimized by model 1  
 HQ is minimized by model 1  
 SC is minimized by model 1  
 HK is minimized by model 1

\*\*\* Warning: OLS - W'W is singular.

Specific model of relResInvNEL, 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1166.51461	495.71095	2.353	0.0228	0.0816	0.0008	1.0000
relResInvNEL_1	0.77464	0.08884	8.720	0.0000	0.0000	0.0000	1.0000
relResInvNEL_4	-0.15740	0.07789	-2.021	0.0490	0.0146	0.3291	0.7000
w	28.38271	5.56292	5.102	0.0000	0.0009	0.0000	1.0000
w2	-3.50864	0.70320	-4.990	0.0000	0.0015	0.0000	1.0000
p2	0.29849	0.09357	3.190	0.0025	0.0040	0.0701	1.0000
p2_1	-0.17125	0.08827	-1.940	0.0584	0.0055	0.7912	0.4626
qFRB	-527.62859	217.37311	-2.427	0.0191	0.0752	0.0003	1.0000
qFRB2	58.12984	23.92582	2.430	0.0190	0.0760	0.0003	1.0000
Trend	-0.22693	0.07914	-2.867	0.0062	0.0234	0.1208	1.0000
d911	1.89791	0.51496	3.686	0.0006	1.0000	0.0000	0.4000

-1	Constant	1167	0	0	0	0	1167	304	
-8	SE	495.7	0	0	0	0	495.7	136	
-7	Trend	-0.2269	0	0	0	0	-0.2269	-0.592	
-9	SE	0.07914	0	0	0	0	0.07914	0.198	

Roots of the autoregressive dynamics

real	imag	modulus
0.696131	0.333251	0.771786
0.696131	-0.333251	0.771786
-0.308812	0.410943	0.514042
-0.308812	-0.410943	0.514042

Roots of the distributed lag polynomial in p2

real
-0.573730

GUM( 6) Modelling relResInvNEL by GETS (using PrInv.in7), 1988 (2) - 2002 (3)

	RSS	sigma	R^2	Radj^2	0.97962
LogLik	49.75978	AIC	-1.33654	HQ	-1.18433
T	58	p	11	FpNull	0.00000
				FpGUM	0.54540

	Coeff	StdError	t-value	t-prob
Constant	2068.84856	878.48714	2.355	0.0244
relResInvNEL_1	0.91043	0.15121	6.021	0.0000
relResInvNEL_2	-0.30593	0.19974	-1.532	0.1349
relResInvNEL_3	0.10097	0.23222	0.435	0.6665
relResInvNEL_4	-0.34861	0.22690	-1.536	0.1337
relResInvNEL_5	0.25218	0.14777	1.706	0.0970
w	38.86253	40.12966	0.968	0.3397
w_1	-6.93948	39.11699	-0.177	0.8602
w2	-4.73021	4.16706	-1.135	0.2643
w2_1	0.68852	3.99992	0.172	0.8644
p	-2.82161	7.53892	-0.374	0.7105
p_1	7.35709	9.59007	0.767	0.4483
p2	0.81613	1.29340	0.631	0.5323
p2_1	-1.45494	1.69368	-0.859	0.3963
qFRB	-535.61572	293.05062	-1.828	0.0764
qFRB_1	-390.09930	351.49210	-1.110	0.2749
qFRB2	59.55226	32.33715	1.842	0.0743
qFRB2_1	42.37828	38.85093	1.091	0.2830
r30y	0.14021	0.45778	0.306	0.7613
r30y_1	0.13624	0.47591	0.286	0.7764
r30y2	-0.02026	0.05765	-0.352	0.7274
r30y2_1	-0.01024	0.06128	-0.167	0.8682
Trend	-0.31258	0.13834	-2.259	0.0304
d911	1.62202	0.63845	2.541	0.0158

	value	prob
Chow(1995:3)	1.7667	0.1002
Chow(2001:2)	1.7831	0.1372
normality test	1.3473	0.5098
AR 1-4 test	0.6946	0.5998
ARCH 1-4 test	0.8816	0.4839
hetero test	32.2857	0.0139

Dynamic analysis

Lag structure

	Lag 0	Lag 1	Lag 2	Lag 3	Lag 4	Sum	LongRun
relResInvNEL	0	0.7746	0	0	-0.1574	0.6172	
-1	SE	0	0.08884	0	0	0.07789	0.09142
w	28.38	0	0	0	0	28.38	74.1
-5	SE	5.563	0	0	0	5.563	11.2
+3	w2	-3.509	0	0	0	-3.509	-9.16
-7	SE	0.7032	0	0	0	0.7032	1.37
-4	p2	0.2985	-0.1713	0	0	0.1272	0.332
+4	SE	0.09357	0.08827	0	0	0.064	0.195
+3	qFRB	-527.6	0	0	0	-527.6	-137
-8	SE	217.4	0	0	0	217.4	600.
-9	qFRB2	58.13	0	0	0	58.13	151.
+9	SE	23.93	0	0	0	23.93	66.2
+2	d911	1.898	0	0	0	1.898	4.95
-9	SE	0.515	0	0	0	0.515	1.76

	RSS	sigma	R^2	Radj^2	0.97902
LogLik	58.30972	AIC	-1.18309	HQ	-0.85099
T	58	p	24	FpNull	0.00000
				FpConst	0.00000

	value	prob	alpha
Chow(1995:3)	6.2857	0.0145	0.0050
Chow(2001:2)	2.3820	0.0630	0.0100
normality test	3.7262	0.1552	0.0100
AR 1-4 test	0.2822	0.8872	0.0100
ARCH 1-4 test	0.6818	0.6109	0.0100
hetero test	40.2267	0.3293	0.0100

Significance levels (alpha) set for subsequent tests.

\*\*\* Warning: OLS - W'W is singular.

Final model 1

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1693.12352	465.47283	3.637	0.0007	0.0267	0.0001	1.0000

relResInvNE1_1	0.86637	0.12137	7.138	0.0000	0.0000	0.0001	1.0000
relResInvNE1_2	-0.28624	0.11755	-2.435	0.0189	0.0455	0.1023	1.0000
w	30.90643	5.59061	5.528	0.0000	0.0056	0.0000	1.0000
w2	-3.89450	0.70618	-5.515	0.0000	0.0071	0.0000	1.0000
p1	9.82363	5.79048	1.697	0.0967	0.8898	0.0265	0.4331
p2	0.32196	0.09356	3.441	0.0013	0.0011	0.0321	1.0000
p2_1	-1.93840	0.98807	-1.962	0.0560	0.6744	0.0236	0.4977
qFRB	-755.11235	203.61990	-3.708	0.0006	0.0280	0.0000	1.0000
qFRB_1	-7.61103	3.69027	-2.062	0.0450	0.0009	0.8783	0.4365
qFRB2	83.84311	22.44627	3.735	0.0005	0.0270	0.0000	1.0000
Trend	-0.28291	0.07762	-3.645	0.0007	0.0430	0.0332	1.0000
d911	1.91255	0.49597	3.856	0.0004	1.0000	0.0000	0.4000

RSS	8.99064	sigma	0.44698	R^2	0.98551	Radj^2	0.98165
LogLik	54.06350	AIC	-1.41598	HQ	-1.23609	SC	-0.95416
T	58	p	13	FpNull	0.00000	FpGUM	0.89804

	value	prob
Chow(1995:3)	1.1117	0.4192
Chow(2001:2)	2.9890	0.0220
normality test	1.6681	0.4343
AR 1-4 test	0.3115	0.8686
ARCH 1-4 test	1.0385	0.4005
hetero test	31.0308	0.0548

\*\*\* Warning: OLS - W'W is singular.

Final model 2

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1681.31724	464.97050	3.616	0.0008	0.0282	0.0001	1.0000
relResInvNE1_1	0.86672	0.12143	7.137	0.0000	0.0000	0.0001	1.0000
relResInvNE1_2	-0.28583	0.11760	-2.431	0.0191	0.0450	0.1041	1.0000
w	30.80652	5.59852	5.503	0.0000	0.0058	0.0000	1.0000
w2	-3.88089	0.70691	-5.490	0.0000	0.0073	0.0000	1.0000
p1	9.83915	5.79309	1.698	0.0963	0.8961	0.0264	0.4312
p2	0.32111	0.09358	3.432	0.0013	0.0011	0.0320	1.0000
p2_1	-1.94088	0.98854	-1.963	0.0558	0.6798	0.0236	0.4961
qFRB	-757.52203	203.87438	-3.716	0.0006	0.0269	0.0000	1.0000
qFRB2	84.10481	22.47573	3.742	0.0005	0.0260	0.0000	1.0000
qFRB2_1	-0.83573	0.40764	-2.050	0.0462	0.0009	0.9073	0.4278
Trend	-0.28140	0.07761	-3.626	0.0007	0.0436	0.0336	1.0000
d911	1.91671	0.49645	3.861	0.0004	1.0000	0.0000	0.4000

RSS	8.99988	sigma	0.44721	R^2	0.98550	Radj^2	0.98163
LogLik	54.03371	AIC	-1.41496	HQ	-1.23507	SC	-0.95313
T	58	p	13	FpNull	0.00000	FpGUM	0.89568

	value	prob
Chow(1995:3)	1.1152	0.4164
Chow(2001:2)	2.9923	0.0219
normality test	1.6473	0.4388
AR 1-4 test	0.3126	0.8679
ARCH 1-4 test	1.0361	0.4017
hetero test	30.9937	0.0553

\*\*\* Warning: OLS - W'W is singular.

Final model 3

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1685.93285	474.86060	3.550	0.0009	0.0217	0.0002	1.0000
relResInvNE1_1	0.88295	0.12342	7.154	0.0000	0.0000	0.0001	1.0000
relResInvNE1_2	-0.26060	0.11893	-2.191	0.0335	0.0437	0.2931	0.7000
w	28.68558	5.54503	5.173	0.0000	0.0014	0.0000	1.0000
w2	-3.58950	0.69671	-5.152	0.0000	0.0018	0.0000	1.0000
p2	0.35398	0.09349	3.786	0.0004	0.0005	0.0369	1.0000
p2_1	-0.26963	0.09532	-2.829	0.0069	0.0000	0.6069	0.5179

qFRB	-744.63474	207.63959	-3.586	0.0008	0.0233	0.0001	1.0000
qFRB_1	-8.02785	3.75650	-2.137	0.0379	0.0007	0.8327	0.4502
qFRB2	82.69553	22.88952	3.613	0.0007	0.0223	0.0001	1.0000
Trend	-0.25704	0.07764	-3.311	0.0018	0.0158	0.0701	1.0000
d911	1.94221	0.50568	3.841	0.0004	1.0000	0.0000	0.4000

RSS	9.56568	sigma	0.45601	R^2	0.98459	Radj^2	0.98090
LogLik	52.26559	AIC	-1.38847	HQ	-1.22242	SC	-0.96217
T	58	p	12	FpNull	0.00000	FpGUM	0.77893

	value	prob
Chow(1995:3)	1.2741	0.3001
Chow(2001:2)	2.0042	0.0983
normality test	1.9778	0.3720
AR 1-4 test	0.1633	0.9557
ARCH 1-4 test	1.2701	0.2987
hetero test	32.4613	0.0277

Summary of testimation

	RSS	p	R^2	Radj^2	LogLik	AIC	HQ	SC	
-> HK									
Model 1	8.9906	13	0.9855	0.9817	54.064	-1.4160	-1.2361	-0.9542	-1.
->1282									
Model 2	8.9999	13	0.9855	0.9816	54.034	-1.4150	-1.2351	-0.9531	-1.
->1266									
Model 3	9.5657	12	0.9846	0.9809	52.266	-1.3885	-1.2224	-0.9622	-1.
->1291									

AIC is minimized by model 1  
 HQ is minimized by model 1  
 SC is minimized by model 3  
 HK is minimized by model 3

\*\*\* Warning: OLS - W'W is singular.

Specific model of relResInvNE1, 1988 (2) - 2002 (3)

	Coeff	StdError	t-value	t-prob	Split1	Split2	reliable
Constant	1693.12352	465.47283	3.637	0.0007	0.0267	0.0001	1.0000
relResInvNE1_1	0.86637	0.12137	7.138	0.0000	0.0000	0.0001	1.0000
relResInvNE1_2	-0.28624	0.11755	-2.435	0.0189	0.0455	0.1023	1.0000
w	30.90643	5.59061	5.528	0.0000	0.0056	0.0000	1.0000
w2	-3.89450	0.70618	-5.515	0.0000	0.0071	0.0000	1.0000
p1	9.82363	5.79048	1.697	0.0967	0.8898	0.0265	0.4331
p2	0.32196	0.09356	3.441	0.0013	0.0011	0.0321	1.0000
p2_1	-1.93840	0.98807	-1.962	0.0560	0.6744	0.0236	0.4977
qFRB	-755.11235	203.61990	-3.708	0.0006	0.0280	0.0000	1.0000
qFRB_1	-7.61103	3.69027	-2.062	0.0450	0.0009	0.8783	0.4365
qFRB2	83.84311	22.44627	3.735	0.0005	0.0270	0.0000	1.0000
Trend	-0.28291	0.07762	-3.645	0.0007	0.0430	0.0332	1.0000
d911	1.91255	0.49597	3.856	0.0004	1.0000	0.0000	0.4000

RSS	8.99064	sigma	0.44698	R^2	0.98551	Radj^2	0.98165
LogLik	54.06350	AIC	-1.41598	HQ	-1.23609	SC	-0.95416
T	58	p	13	FpNull	0.00000	FpGUM	0.89804

	value	prob
Chow(1995:3)	1.1117	0.4192
Chow(2001:2)	2.9890	0.0220
normality test	1.6681	0.4343
AR 1-4 test	0.3115	0.8686
ARCH 1-4 test	1.0385	0.4005
hetero test	31.0308	0.0548

Dynamic analysis

Lag structure

	Lag 0	Lag 1	Lag 2	Sum	LongRun
relResInvNE1	0	0.8664	-0.2862	0.5801	1
SE	0	0.1214	0.1176	0.08554	
w	30.91	0	0	30.91	73.61
SE	5.591	0	0	5.591	9.117
w2	-3.894	0	0	-3.894	-9.275
SE	0.7062	0	0	0.7062	1.114
p	0	9.824	0	9.824	23.4
SE	0	5.79	0	5.79	13.22
p2	0.322	-1.938	0	-1.616	-3.85
SE	0.09356	0.9881	0	1.005	2.283
qFRB	-755.1	-7.611	0	-762.7	-1817
SE	203.6	3.69	0	204.1	487.6
qFRB2	83.84	0	0	83.84	199.7
SE	22.45	0	0	22.45	53.69
d911	1.913	0	0	1.913	4.555
SE	0.496	0	0	0.496	1.467
Constant	1693	0	0	1693	4032
SE	465.5	0	0	465.5	1115
Trend	-0.2829	0	0	-0.2829	-0.6738
SE	0.07762	0	0	0.07762	0.1686

Roots of the autoregressive dynamics

real	imag	modulus
0.433183	-0.313990	0.535012
0.433183	0.313990	0.535012

Roots of the distributed lag polynomial in p2

real  
-6.020567

Roots of the distributed lag polynomial in qFRB

real  
0.010079