Table 1: **Data Summary Statistics**: **1961Q4-2004Q1**

	π	g	r_1	r_4	r_8	r_{12}	r_{20}	r_{28}	r_{40}	r_{68}
Mean	4.0391	-0.6889	6.3239	6.3954	6.6305	6.7849	7.0021	6.7849	7.2513	7.5567
Std.	2.9753	2.3313	2.7668	2.8091	2.7274	2.6430	2.5372	2.4716	2.4123	2.2889
Auto.	0.9921	0.4632	0.9815	0.9892	0.9923	0.9944	0.9953	0.9963	0.9969	0.9971
KPSS	0.3399	0.2151	0.3100	0.3307	0.3348	0.3399	0.3475	0.3548	0.3761	0.4298
ADF	-2.411	-4.133	-2.110	-2.100	-2.063	-2.031	-2.043	-1.991	-1.951	-2.091

Inflation (π) and interest rates are from Datastream. Output gap (g) is from OECD. Yield data are US Treasury discount bond equivalent data compliled by McCulloch and Kwon (1990), updated by the New York Federal Reserve Bank. *Mean* denotes sample arithmetic mean expressed as percentage p.a.; *Std*. standard deviation and *Auto*. the first order quarterly autocorrelation coefficient.*KPSS* is the Kwiatowski et al (1992) statistic testing the null hypothesis of level stationarity. The 10% and 5% significance levels are 0.347 and 0.463 respectively. *ADF* is the Adjusted Dickey-Fuller statistic testing the null hypothesis of non-stationarity. The 10% and 5% significance levels are 2.575 and 2.877 respectively.

Table 2: **The dynamic structure of Model M1**

parameter	estimate	t-value	parameter	estimate	t-value
			Φ_1		
θ_2	0.00103	9.77	$\phi_{1,11}$	1.14903	76.67
ξ_2	0.88120	134.54	$\phi_{1,21}$	0.07257	5.63
			$\phi_{1,23}$	0.13842	5.89
			$\phi_{1,21}$	-0.0873	8.48
			$\phi_{1,22}$	1.05245	180.86
			$\phi_{1,23}$	0.07155	3.85
			$\phi_{1,31}$	-0.1440	9.40
			$\phi_{1,32}$	0.29182	40.31
			$\phi_{1,33}$	0.87295	31.36
parameter	estimate	t-value	parameter	estimate	t-value
Φ_2			Φ_3		
$\phi_{2,11}$	-0.15238	11.91	$\phi_{3,11}$	-0.02289	1.93
$\phi_{2,12}$	0.04986	4.01	$\phi_{3,12}$	-0.02187	1.78
$\phi_{2,13}$	-0.15107	7.19	$\phi_{3,13}$	-0.04117	2.18
$\phi_{2,21}$	-0.02229	2.55	$\phi_{3,21}$	0.09171	11.48
$\phi_{2,22}$	0.08715	14.03	$\phi_{3,22}$	-0.18818	31.01
$\phi_{2,23}$	-0.29138	17.49	$\phi_{3,23}$	0.13686	9.25
$\phi_{2,31}$	0.55031	39.47	$\phi_{3,31}$	-0.24992	20.29
$\phi_{2,32}$	0.07208	10.60	$\phi_{3,32}$	-0.24746	37.11
$\phi_{2,33}$	-0.48934	21.89	$\phi_{3,33}$	0.18354	10.85

Table 3: **The variance and risk structure of Model M1**

parameter	estimate	t-value	parameter	estimate	t-value
$\boldsymbol{\Delta}_0$			$\boldsymbol{\Delta}_1$		
δ_{01}	(-)	(-)	δ_{11}	0.00870	10.99
δ_{02}	4.31719×10^{-4}	1.42	δ_{12}	0.01372	9.98
δ_{03}	0.00063	2.22	δ_{13}	0. 00831	6.66
δ_{04}	0.00151	5.79	δ_{13}	0.00710	2.37
δ_{05}	1.9233×10^{-5}	0.01	δ_{15}	0.01241	9.54
$\boldsymbol{\Lambda}_{20}$			$\boldsymbol{\Lambda}_{21}$		
$\lambda_{20,1}$	0.872353	0.06	$\lambda_{21,1}$	2.98994	2.22
$\lambda_{20,2}$	-11.8262	1.16	$\lambda_{21,2}$	-48.769	5.66
$\lambda_{20,3}$	-0.42606	0.04	$\lambda_{21,3}$	-10.824	1.22
$\lambda_{20,4}$	0.479634	0.80	$\lambda_{21,4}$	1.23191	0.50
$\boldsymbol{\Lambda}_{22}$			Λ_{22}		
$\lambda_{22,11}$	-4927.3	0.36	$\lambda_{22,21}$	-1824.9	0.02
$\lambda_{22,12}$	-481.0	0.20	$\lambda_{22,22}$	-178.15	0.02
$\lambda_{22,13}$	60.361	0.21	$\lambda_{22,23}$	22.356	0.02
$\lambda_{22,14}$	2428.9	0.30	$\lambda_{22,24}$	899.5	0.02
$\lambda_{22,31}$	-1800.8	0.02	$\lambda_{22,41}$	11956.4	0.03
$\lambda_{22,31}$	-175.80	0.02	$\lambda_{22,42}$	1167.2	0.02
$\lambda_{22,31}$	22.06	(-)	$\lambda_{22,43}$	-146.47	0.02
$\lambda_{22,31}$	887.70	0.02	$\lambda_{22,44}$	-5893.6	0.03

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ρ_1	3.75991×10^{-4}	9.27	λ_{10}	-8.944	6.88
ρ_2	6.26451×10^{-5}	5.00			
ρ_3	1.69152×10^{-4}	9.32	**G**		
ρ_4	1.55041×10^{-4}	9.25	g_{21}	0.13891	0.66
ρ_5	8.08365×10^{-5}	4.44	g_{31}	0.17355	0.97
ρ_6	2.73262×10^{-4}	9.34	g_{32}	0.15061	1.07
ρ_7	9.64625×10^{-4}	9.31			