

Table I
Summary Statistics

r_{SMALL} and r_{LARGE} denote respectively the excess returns on the small-cap and large-cap portfolios, r_{VW} is the excess return on the market portfolio, r_{DEF} and r_{TERM} are the default and risk premium, respectively, g_{IP} and g_{CONS} are growth rates of industrial production and per capita consumption, respectively, π_{UI} measures the unanticipated inflation rate and g_{MON} the growth rate of the money supply, respectively. All reported numbers are annualized, in percentages.

	r_{SMALL}	r_{LARGE}	r_{VW}	r_{DEF}	r_{TERM}	g_{IP}	g_{CONS}	π_{UI}	g_{MON}
1959:01-1999:12									
Mean	8.21	6.41	6.35	1.85	1.40	3.43	2.09	0.00	6.68
Median	12.17	9.78	9.73	1.81	0.31	4.38	2.39	-0.18	6.57
Maximum	389.06	198.80	195.37	3.93	112.93	71.97	21.60	16.36	32.40
Minimum	-354.16	-261.90	-266.67	0.14	-79.19	-50.96	-21.58	-10.69	-11.98
Std. Dev.	67.14	50.48	50.73	0.80	18.82	10.54	5.41	2.51	4.86
Skewness	-0.18	-0.40	-0.43	0.18	0.23	-0.10	-0.21	0.52	0.16
Kurtosis	7.32	5.22	5.31	2.26	7.06	9.03	4.49	7.61	5.15
1959:01-1979:12									
Mean	8.08	3.02	3.29	1.42	0.17	4.12	2.28	0.19	5.86
Median	9.67	4.11	4.92	1.26	-0.30	4.66	2.45	-0.16	5.98
Maximum	389.06	198.80	195.37	3.54	54.81	71.97	21.60	16.36	22.22
Minimum	-253.47	-144.16	-145.93	0.14	-70.98	-50.96	-21.58	-6.89	-10.40
Std. Dev.	72.57	49.57	50.20	0.73	15.33	12.39	5.92	2.59	4.16
Skewness	0.40	-0.05	-0.06	0.85	-0.16	-0.11	-0.19	1.08	0.03
Kurtosis	6.48	4.13	4.07	2.97	6.24	8.48	4.29	8.28	3.96
1980:01-1999:12									
Mean	8.34	9.98	9.57	2.29	2.68	2.70	1.89	-0.20	7.54
Median	14.69	12.38	12.76	2.25	2.29	3.91	2.24	-0.19	7.32
Maximum	167.19	149.87	149.07	3.93	112.93	25.60	17.78	7.97	32.40
Minimum	-354.16	-261.90	-266.67	0.78	-79.19	-30.09	-14.68	-10.69	-11.98
Std. Dev.	61.08	51.27	51.19	0.60	21.86	8.12	4.81	2.41	5.38
Skewness	-1.19	-0.75	-0.81	0.31	0.27	-0.40	-0.32	-0.24	0.04
Kurtosis	8.46	6.45	6.72	2.78	6.30	4.35	4.38	6.19	5.34

Table II
Correlations

See notes in Table I for variable definitions.

		r_{SMALL}	r_{LARGE}
1959:02-1999:12	r_{VW}	0.87	1.00
	r_{DEF}	0.19	0.20
	r_{TERM}	0.15	0.24
	g_{IP}	-0.03	-0.02
	g_{CONS}	0.20	0.15
	π_{UI}	-0.22	-0.20
	g_{MON}	-0.06	-0.03
	1959:02-1979:12	r_{VW}	0.88
r_{DEF}		0.20	0.20
r_{TERM}		0.17	0.21
g_{IP}		0.04	0.06
g_{CONS}		0.22	0.21
π_{UI}		-0.21	-0.22
g_{MON}		-0.05	-0.09
1980:01-1999:12		r_{VW}	0.87
	r_{DEF}	0.27	0.18
	r_{TERM}	0.16	0.26
	g_{IP}	-0.15	-0.14
	g_{CONS}	0.17	0.09
	π_{UI}	-0.23	-0.16
	g_{MON}	-0.07	0.00

Table III
Rejection Rates Under the Null Hypothesis

We simulate 500 times the series $r_{it} = x_{1t} + x_{2t} + \dots + x_{Kt} + \varepsilon_{it}, i = 1, 2, t = 1, \dots, T, T = 240$ or 492 . $x_{it} = 0.002 + 0.10x_{i,t-1} + u_{it}, i = 1, 2, \dots, K$, where u_{1t}, \dots, u_{Kt} are mutually independent and i.i.d. normally distributed with zero mean and variance 0.0001. $\varepsilon_{it} = 0.1\varepsilon_{i,t-1} + 0.003\sqrt{1 + 0.2\varepsilon_{i,t-1}^2}\eta_{it}, i = 1, 2$, with η standard normal noise. We test the null hypothesis of equality of all parameters across the two assets.

			Covariance Matrix Estimator						
K	Sample Size	Test	WH	NW	NW-P	A	AM	VARHAC	
2	240	F	0.08						
		score	0.07	0.03	0.02	0.05	0.05	0.05	
2	492	Wald	0.08	0.08	0.07	0.07	0.07	0.07	
		F	0.07						
4	240	score	0.07	0.07	0.05	0.05	0.06	0.05	
		Wald	0.08	0.08	0.07	0.07	0.06	0.06	
4	492	F	0.07						
		score	0.05	0.02	0.01	0.04	0.04	0.04	
4	492	Wald	0.10	0.13	0.13	0.10	0.08	0.08	
		F	0.06						
4	492	score	0.06	0.05	0.03	0.03	0.04	0.04	
		Wald	0.06	0.08	0.08	0.06	0.05	0.05	

Table IV
Rejection Rates Under the Alternative Hypothesis

We simulate 500 times series

$$r_{1t} = x_{1t} + x_{2t} + \dots + x_{Kt} + \varepsilon_{1t},$$

$$r_{2t} = x_{1t} + x_{2t} + \dots + x_{\frac{K}{2},t} + (1 + \frac{0.2}{K})(x_{(\frac{K}{2}+1),t} + x_{(\frac{K}{2}+2),t} + \dots + x_{Kt}) + \varepsilon_{2t},$$

$t = 1, 2, \dots, T$, $T = 240$ or 492 . $x_{it} = 0.002 + 0.10x_{i,t-1} + u_{it}$, $i = 1, 2, \dots, K$, where u_{1t}, \dots, u_{Kt} are mutually independent and i.i.d. normally distributed with zero mean and variance 0.0001. $\varepsilon_{it} = 0.1\varepsilon_{i,t-1} + 0.003\sqrt{1 + 0.2\varepsilon_{i,t-1}^2}\eta_{it}$, $i = 1, 2$, with η standard normal noise. We test the null hypothesis of equality of all parameters across the two assets.

			Covariance Matrix Estimator						
K	Sample Size	Test	WH	NW	NW-P	A	AM	VARHAC	
2	240	F	0.89						
		score	0.87	0.78	0.77	0.85	0.84	0.84	
2	492	Wald	0.90	0.89	0.89	0.88	0.87	0.87	
		F	1.00						
2	492	score	0.99	0.99	0.99	0.99	0.99	0.99	
		Wald	1.00	1.00	1.00	1.00	1.00	1.00	
4	240	F	0.58						
		score	0.51	0.26	0.26	0.43	0.48	0.48	
4	492	Wald	0.61	0.62	0.61	0.61	0.58	0.58	
		F	0.89						
4	492	score	0.86	0.76	0.74	0.82	0.84	0.84	
		Wald	0.89	0.87	0.87	0.88	0.88	0.88	

Table V
Tests of Assorted Univariate Models

The model is $r_{it} = \alpha_i + \beta_i x_t + \varepsilon_{it}$, $i = 1, 2$, where α_i is the i -th intercept, β_i is the i -th slope, $r_{1t} = r_{SMALL}$, $r_{2t} = r_{LARGE}$, x_t is one the following variables: r_{VW} , r_{DEF} , r_{TERM} , g_{IP} , g_{CONS} , π_{UI} , g_{MON} (see notes for Table I for variables' definitions) and ε_{it} is the regression error. Reported are HAC score statistics (VARHAC method) for testing: Equality of all parameters across the two equations; equality of slopes only; equality of intercepts only; zero values for intercepts. p -values are in parentheses.

Hypothesis	Years	independent variable						
		r_{VW}	r_{DEF}	r_{TERM}	g_{IP}	g_{CONS}	π_{UI}	g_{MON}
equal parameters	59-99	8.18 (0.02)	2.43 (0.30)	1.94 (0.38)	0.90 (0.64)	13.02 (0.00)	7.13 (0.03)	2.36 (0.31)
	59-79	10.14 (0.01)	3.76 (0.15)	3.81 (0.15)	3.70 (0.16)	10.28 (0.01)	4.59 (0.10)	3.12 (0.21)
	80-99	0.75 (0.69)	7.11 (0.03)	4.55 (0.10)	1.18 (0.56)	5.63 (0.06)	6.42 (0.04)	2.06 (0.36)
equal slopes	59-99	7.71 (0.01)	1.83 (0.18)	1.33 (0.25)	0.08 (0.77)	11.91 (0.00)	6.72 (0.01)	1.35 (0.25)
	59-79	8.96 (0.00)	1.69 (0.19)	0.27 (0.60)	0.01 (0.94)	6.13 (0.01)	2.42 (0.12)	0.00 (0.99)
	80-99	0.39 (0.53)	6.22 (0.01)	3.80 (0.05)	0.74 (0.39)	5.28 (0.02)	6.02 (0.01)	1.69 (0.19)
equal intercepts	59-99	0.32 (0.57)	0.88 (0.35)	1.01 (0.32)	0.79 (0.37)	0.04 (0.84)	0.94 (0.33)	2.34 (0.13)
	59-79	3.62 (0.06)	0.33 (0.57)	3.18 (0.07)	2.09 (0.15)	0.89 (0.35)	3.39 (0.07)	0.84 (0.36)
	80-99	0.65 (0.42)	7.05 (0.01)	0.17 (0.68)	0.13 (0.72)	2.13 (0.14)	0.69 (0.41)	0.44 (0.50)
zero intercepts	59-99	6.37 (0.04)	9.10 (0.01)	6.03 (0.05)	6.78 (0.03)	2.33 (0.31)	7.88 (0.02)	4.98 (0.08)
	59-79	3.62 (0.16)	6.49 (0.04)	3.21 (0.20)	2.10 (0.35)	1.26 (0.53)	3.58 (0.17)	2.07 (0.36)
	80-99	8.69 (0.01)	7.27 (0.03)	7.99 (0.02)	13.33 (0.00)	10.46 (0.01)	10.06 (0.01)	4.53 (0.10)

Table VI
Tests of Assorted Bivariate Models

The model is $r_{it} = \alpha_i + \beta_i x_t + \varepsilon_{it}$, $i = 1, 2$, where α_i is the i -th intercept, β_i is the i -th slope, $r_{1t} = r_{SMALL}$, $r_{2t} = r_{LARGE}$, elements of x_t are r_{VW} and of one the following variables: r_{VW} , r_{DEF} , r_{TERM} , g_{IP} , g_{CONS} , π_{UI} , g_{MON} (see notes for Table I for variables' definitions) and ε_{it} is the regression error. Reported are HAC score statistics (VARHAC method) for testing: Equality of all parameters across the two equations; equality of slopes only; equality of intercepts only; zero values for intercepts. p -values are in parentheses.

Hypothesis	Years	independent variable (in addition to market return)					
		r_{DEF}	r_{TERM}	g_{IP}	g_{CONS}	π_{UI}	g_{MON}
equal parameters	59-99	8.32	9.84	9.11	16.93	11.84	9.01
		(0.04)	(0.02)	(0.03)	(0.00)	(0.01)	(0.03)
	59-79	10.56	10.15	13.52	13.00	10.19	10.50
equal slopes (market)	59-99	7.35	8.65	7.66	6.25	6.26	7.75
		(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
	59-79	9.11	8.99	8.38	8.01	8.51	9.06
equal slopes (other)	59-99	0.82	5.15	0.07	7.93	4.10	2.01
		(0.37)	(0.02)	(0.80)	(0.00)	(0.04)	(0.16)
	59-79	0.68	0.37	0.16	1.33	0.22	0.23
equal intercepts	59-99	0.34	0.44	0.33	0.25	0.38	2.40
		(0.56)	(0.51)	(0.57)	(0.62)	(0.54)	(0.12)
	59-79	0.02	3.62	2.89	1.53	3.74	0.44
zero intercepts	59-99	0.84	6.22	5.98	5.52	6.55	5.79
		(0.66)	(0.04)	(0.05)	(0.06)	(0.04)	(0.06)
	59-79	3.71	3.63	2.96	1.67	3.76	0.83
zero intercepts	59-99	12.41	8.32	7.92	12.19	8.54	2.89
		(0.00)	(0.02)	(0.02)	(0.00)	(0.01)	(0.24)