Table A1: In-sample predictive regression model estimation results and out-of-sample forecasting test results for horizons of 1, 5, and 10 years, annual CRSP value-weighted log real returns

Horizon:	1 year	5 years	10 years	1 year	5 years	10 years	1 year	5 years	10 years
	Dividend-price ratio, log-level			Payout ratio, log-level			Equity share		
β	2.45	16.23	41.88	-1.47	0.18	-10.85	7.25	11.24	6.46
t-statistic	0.98 [0.15]	1.40 [0.19]	**3.17** [0.07]	-0.62 [0.71]	0.03 [0.45]	-1.99 [0.85]	**3.35** [0.00]	**2.02** [0.07]	1.53 [0.17]
R^2	0.01	0.11	0.37	0.01	0.00	0.04	0.14	0.09	0.02
Theil's *U*	1.08	1.08	0.72	1.02	1.03	1.12	0.93	0.97	1.00
MSE-F	-5.27 [0.93]	-4.55 [0.13]	**24.39** [0.03]	-1.12 [0.60]	-1.75 [0.45]	-5.46 [0.70]	**5.45** [0.00]	1.74 [0.11]	-0.15 [0.37]
ENC-NEW	0.68 [0.25]	3.69 [0.21]	**20.38** [0.06]	-0.51 [0.75]	-0.75 [0.59]	-2.21 [0.81]	**5.22** [0.00]	1.68 [0.11]	0.02 [0.46]
	Price-earnings ratio, log-level			Term spread					
β	2.08	13.17	34.49	1.06	13.18	12.11			
t-statistic	0.87 [0.28]	1.99 [0.20]	**5.05** [0.04]	0.46 [0.30]	**1.83** [0.08]	1.87 [0.12]			
R^2	0.01	0.11	0.38	0.00	0.13	0.05			
Theil's *U*	1.03	1.05	0.81	1.01	0.92	0.98			
MSE-F	-2.09 [0.85]	-2.83 [0.57]	**13.68** [0.04]	-0.82 [0.57]	**5.83** [0.02]	1.16 [0.22]			
ENC-NEW	0.07 [0.33]	2.83 [0.17]	**12.61** [0.05]	-0.30 [0.63]	**5.52** [0.02]	1.25 [0.21]			
	Book-to-market ratio, log-level			Default spread					
β	2.81	10.72	35.12	1.59	2.41	-0.35			
t-statistic	1.12 [0.28]	0.86 [0.50]	2.62 [0.26]	0.68 [0.30]	0.39 [0.47]	-0.03 [0.60]			
R^2	0.02	0.05	0.23	0.01	0.00	0.00			
Theil's *U*	1.25	1.27	0.97	1.00	1.01	1.11			
MSE-F	-12.79 [1.00]	-12.06 [0.87]	1.57 [0.24]	-0.08 [0.23]	-0.44 [0.29]	-5.21 [0.72]			
ENC-NEW	-1.44 [0.96]	-1.65 [0.72]	4.29 [0.24]	0.08 [0.33]	-0.19 [0.45]	-2.39 [0.85]			
	Fed q, log-level			Short-term interest rate					
β	5.07	25.15	51.82	-0.18	1.92	0.13			
t-statistic	2.12 [0.14]	3.11 [0.22]	**6.97** [0.08]	-0.08 [0.44]	0.30 [0.33]	0.01 [0.40]			
R^2	0.06	0.32	0.74	0.00	0.00	0.00			
Theil's *U*	1.11	1.04	0.57	1.05	1.37	1.73			
MSE-F	-6.96 [0.97]	-2.34 [0.43]	**55.10** [0.02]	-3.40 [0.90]	-14.88 [0.95]	-18.01 [0.93]			
ENC-NEW	1.73 [0.15]	8.55 [0.14]	**45.98** [0.03]	-0.45 [0.65]	0.62 [0.32]	-1.35 [0.62]			

Notes to Table A1: *p*-values, computed using the bootstrap procedure described in Section 2.3, are given in brackets. Statistics in bold indicate significance at the 10% level using the *p*-values given in brackets. 0.00 indicates < 0.005. β, *t*-statistic, and R^2 are the OLS estimate of β, its corresponding *t*-statistic, and the goodness-of-fit measure, respectively, for the in-sample predictive regression model, equation (1), described in Section 2.1. (As noted in the text, we first divide each financial variable by its standard deviation before it enters equation (1), and we take the negative of the price-earnings ratio, log-level; Fed q, log-level; short-term interest rate; and equity share before they enter into equation (1).) Theil's *U* is the ratio of the root-mean-squared forecast errors for the unrestricted and restricted models described in Section 2.2. The *MSE-F* statistic is used to test the null hypothesis that the MSE for the unrestricted model forecasts is less than the MSE for the restricted model forecasts. The *ENC-NEW* statistic is used to test the null hypothesis that restricted model forecasts encompass the unrestricted model forecasts.

Table A2: Data-mining bootstrap critical values, CRSP value-weighted log real returns

Horizon:	1 year			5 years			10 years		
	10%	5%	1%	10%	5%	1%	10%	5%	1%
maximal *t*-statistic	2.61	2.93	3.56	4.40	5.42	6.88	6.65	8.04	12.04
maximal *MSE-F*	3.78	5.18	8.23	14.50	20.94	36.38	32.60	52.41	93.13
maximal *ENC-NEW*	4.19	5.38	8.15	16.46	23.63	44.55	38.00	61.37	106.75

Notes to Table A2: Critical values computed using the data-mining bootstrap procedure described in Section 2.4. The critical values correspond to the maximum values of the statistics reported in Table A1.

Table A3: In-sample predictive regression model estimation results and out-of-sample forecasting test results for horizons of 1, 8, and 16 quarters, quarterly S&P 500 log real returns

Statistic	Horizon: 1-quarter	8-quarter	16-quarter	Horizon: 1-quarter	8-quarter	16-quarter
	Dividend-price ratio, log-level			Consumption-wealth ratio		
β	2.52	12.71	16.46	9.34	43.96	65.34
t-statistic	1.08 [0.16]	0.50[0.35]	0.33[0.42]	**4.26**[0.00]	**3.56**[0.01]	**3.40**[0.02]
R^2	0.01	0.01	0.01	0.09	0.21	0.25
Theil's *U*	1.11	1.79	1.45	1.08	0.84	0.75
MSE-F	-8.14 [1.00]	-24.75[.98]	-14.7 [0.70]	-6.00[1.00]	**14.64**[0.01]	**22.35**[0.01]
ENC-NEW	-2.40 [1.00]	-7.92[1.00]	-5.82[0.93]	**3.22**[0.00]	**17.50**[0.00]	**13.35**[0.02]
	Price-earnings ratio, log-level			Term spread		
β	1.41	10.72	9.44	6.27	12.31	32.30
t-statistic	0.61[0.50]	0.70[0.55]	0.34[0.70]	**2.78**[0.01]	1.32[0.14]	**2.07**[0.08]
R^2	0.00	0.01	0.01	0.04	0.02	0.08
Theil's *U*	1.02	1.21	1.20	1.02	0.99	0.92
MSE-F	-1.47[0.87]	-11.2[0.94]	-8.67[0.79]	-1.83[0.96]	0.78[0.25]	4.93[0.11]
ENC-NEW	-0.52[0.88]	-3.95[0.95]	-3.66[0.87]	0.54[0.12]	0.84[0.25]	2.78[0.15]
	Fed q, log-level			Default spread		
β	3.30	17.97	30.35	3.25	-1.31	6.83
t-statistic	1.44[0.44]	0.84[0.84]	0.81[0.85]	**1.43**[0.07]	-0.12[0.50]	0.29[0.42]
R^2	0.01	0.03	0.05	0.01	0.00	0.00
Theil's *U*	1.07	1.51	1.38	1.02	1.04	1.07
MSE-F	-5.51[0.98]	-20.1 [0.96]	-13.3 [0.80]	-1.55[0.92]	-2.55[0.67]	-3.64[0.68]
ENC-NEW	-1.63[0.97]	-7.24[1.00]	-5.45[0.96]	-0.61[0.94]	-1.24[0.75]	-1.74[0.76]
	Payout ratio, log-level			Short-term interest rate		
β	2.11	-2.49	-0.43	8.42	12.67	11.63
t-statistic	0.91[0.18]	-0.17[0.53]	-0.02[0.49]	**3.82**[0.00]	**1.62**[0.07]	1.19[0.15]
R^2	0.00	0.00	0.00	0.07	0.02	0.01
Theil's *U*	1.05	1.15	1.01	1.02	1.03	1.00
MSE-F	-4.21[0.99]	-8.66[0.91]	-0.64[0.52]	-1.53[0.92]	-2.07[0.79]	-0.17[0.47]
ENC-NEW	-1.23[0.99]	-3.31[0.94]	-0.23[0.57]	0.33[0.20]	-0.71[0.80]	0.00[0.49]

Notes to Table A3: *p*-values, computed using the bootstrap procedure described in Section 2.3, are given in brackets. Statistics in bold indicate significance at the 10% level using the *p*-values given in brackets. 0.00 indicates < 0.005. β, *t*-statistic, and R^2 are the OLS estimate of β, its corresponding *t*-statistic, and the goodness-of-fit measure, respectively, for the in-sample predictive regression model, equation (1) described in Section 2.1. (As noted in the test, we first divide each financial variable by its standard deviation before it enters equation (1), and we take the negative of the price-earnings ratio, log-level; Fed q, log-level; and short-term interest rate before they enter equation (1).) Theil's *U* is the ratio of the root-mean-squared forecast errors for the unrestricted and restricted regression models described in Section 2.2. The *MSE-F* statistic is used to test the null hypothesis that the MSE for the unrestricted model forecasts is less than the MSE for the restricted model forecasts. The *ENC-NEW* statistic is used to test the null hypothesis that restricted model forecasts encompass the unrestricted model forecasts.

Table A4: In-sample predictive regression model estimation results and out-of-sample forecasting test results for horizons of 1, 8, and 16 quarters, quarterly CRSP equal-weighted log real returns

Statistic	Horizon: 1-quarter	8-quarter	16-quarter	Horizon: 1-quarter	8-quarter	16-quarter
	Dividend-price ratio, log-level			Consumption-wealth ratio		
β	6.69	39.00	48.00	12.08	45.93	48.41
t-statistic	**2.05** [0.09]	2.68[0.13]	1.87[0.35]	**3.79**[0.00]	**2.94**[0.02]	**2.64**[0.05]
R^2	0.02	0.11	0.10	0.07	0.14	0.09
Theil's *U*	1.04	1.93	2.18	1.04	1.04	0.70
MSE-F	-3.12 [0.95]	-26.34 [1.0]	-22.10 [1.0]	-2.84[0.99]	-2.78[0.73]	**28.45**[0.01]
ENC-NEW	-0.09 [0.60]	-5.22[0.98]	-5.96[0.99]	**3.18**[0.00]	**17.87**[0.00]	**26.42**[0.01]
	Price-earnings ratio, log-level			Term spread		
β	4.38	37.13	51.56	7.12	-4.69	-4.53
t-statistic	1.33[0.18]	2.30[0.14]	1.53[0.34]	**2.18**[0.02]	-0.41[0.64]	-0.28[0.59]
R^2	0.01	0.09	0.10	0.03	0.00	0.00
Theil's *U*	1.02	1.74	1.93	0.99	1.08	1.19
MSE-F	-1.93[0.92]	-24.10[1.0]	-20.5 [0.98]	**0.91**[0.07]	-4.93[0.85]	-8.18[0.92]
ENC-NEW	-0.35[0.82]	-5.38[0.98]	-6.22[1.00]	**1.18**[0.03]	-1.98[0.88]	-3.46[0.95]
	Fed q, log-level			Default spread		
β	6.27	38.73	54.81	6.49	0.73	-6.55
t-statistic	1.96[0.23]	1.94[0.39]	1.40[0.66]	**1.99**[0.02]	0.06[0.49]	-0.35[0.58]
R^2	0.02	0.09	0.10	0.02	0.00	0.00
Theil's *U*	1.04	1.67	1.67	1.00	1.01	0.99
MSE-F	-3.07[0.92]	-23.15[1.0]	-17.9 [0.91]	0.29[0.16]	-0.52[0.46]	0.65[0.31]
ENC-NEW	-0.21[0.72]	-4.23[0.92]	-5.39[0.96]	0.35[0.15]	-0.25[0.55]	0.33[0.38]
	Payout ratio, log-level			Short-term interest rate		
β	3.35	-7.96	-36.14	12.02	9.85	0.31
t-statistic	1.00[0.15]	-0.58[0.69]	-1.11[0.77]	**3.79**[0.00]	0.88[0.23]	0.03[0.45]
R^2	0.01	0.00	0.05	0.07	0.01	0.00
Theil's *U*	1.00	1.16	1.78	0.99	0.99	1.03
MSE-F	-0.21[0.46]	-9.34[0.90]	-19.19[1.0]	0.60[0.11]	1.06[0.18]	-1.41[0.75]
ENC-NEW	0.17[0.25]	-3.35[0.92]	-4.88[0.97]	**1.27**[0.03]	0.76[0.21]	-0.68[0.82]

Notes to Table A4: *p*-values, computed using the bootstrap procedure described in Section 2.3, are given in brackets. Statistics in bold indicate significance at the 10% level using the *p*-values given in brackets. 0.00 indicates < 0.005. β, *t*-statistic, and R^2 are the OLS estimate of β, its corresponding *t*-statistic, and the goodness-of-fit measure, respectively, for the in-sample predictive regression model, equation (1) described in Section 2.1. (As noted in the test, we first divide each financial variable by its standard deviation before it enters equation (1), and we take the negative of the price-earnings ratio, log-level; Fed q, log-level; and short-term interest rate before they enter equation (1).) Theil's *U* is the ratio of the root-mean-squared forecast errors for the unrestricted and restricted regression models described in Section 2.2. The *MSE-F* statistic is used to test the null hypothesis that the MSE for the unrestricted model forecasts is less than the MSE for the restricted model forecasts. The *ENC-NEW* statistic is used to test the null hypothesis that restricted model forecasts encompass the unrestricted model forecasts.

Table A5: Data-mining bootstrap critical values, quarterly S&P 500 and CRSP equal-weighted log real returns

	1-year horizon			5-year horizon			10-year horizon		
Statistic	10%	5%	1%	10%	5%	1%	10%	5%	1%
A. S&P 500 log real returns									
maximal *t*-statistic	2.67	3.01	3.50	4.18	4.80	5.92	5.72	6.70	9.72
maximal *MSE-F*	2.80	3.44	4.86	20.83	27.22	43.09	50.92	78.73	163.42
maximal *ENC-NEW*	2.28	2.84	4.21	18.85	27.04	44.07	51.02	74.12	163.32
B. CRSP equal-weighted log real returns									
maximal *t*-statistic	2.70	2.95	3.57	4.28	4.91	5.88	5.70	6.85	9.13
maximal *MSE-F*	2.68	3.46	5.05	20.03	28.24	46.57	37.15	52.55	107.96
maximal *ENC-NEW*	2.02	2.64	3.89	16.38	22.52	39.49	33.78	51.98	86.74

Notes to Table A5: Critical values were computed using the data-mining bootstrap procedure described in Section 2.4. The critical values correspond to the maximum values of the statistics reported in Tables A3 (S&P 500 log real returns) and A4 (CRSP equal-weighted log real returns).