The Other January Effect - Nothing More than a Statistical Artifact

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The Other January Effect

- Stock market anomaly ($\neq$ well-known January Effect)
- Stock market return in January $\rightarrow$ predictor for remainder of year
- Origins in market wisdom: 'As goes January, so goes the year'
- Stock Market Prediction for 2008 using the Other January Effect:
  - DJIA Index at the end of 2007: 13,264.82
  - DJIA Index at the end of January 2008: 12,650.36
  - January return: -4.7%

  $\rightarrow$ negative 11-month holding period return (February to December 2008)

Motivation I

- Cooper et al. (2006, JFE):
  - CRSP (value-weighted and equal-weighted) (1940-2003) and NYSE (1825-2003) data
  - Control variables: macroeconomic and business cycle, Presidential cycle, and investor sentiment
  - Bootstrap inference

→ Significant Other January Effect in full sample and various subsamples

→ No Other January Effect in more recent subsample: 1980-1989 and 1990-2003

→ No fundamental economic explanation

Motivation II

- Other Literature on the Other January Effect

  (Fuller (1978), Bloch and Pupp (1983), Hensel and Ziemba (1995a), Hensel and Ziemba (1995b), Brown and Juo (2006) and Hirsch and Hirsch (2007)):

  – January Barometer

  – Mainly U.S. stock market (S&P 500 and DJIA data)

  → No rigorous econometric investigation of the phenomenon

  → Mixed empirical evidence

Motivation III

- Data-snooping:
  - Seemingly significant calendar effects can result from extensive search for abnormal patterns in non-experimental and limited datasets (Sullivan et al. (2001))

    → Other January Effect result of snooping the U.S. stock market data?

- Controlling for data-snooping:
  - Randomized-bootstrap procedure (Sullivan et al. (2001) and Cooper et al. (2006))
  - New data / data from other countries (Schwert (2003))

  → Broadening the empirical evidence using data from 13 additional stock markets

  → Is Other January Effect a real phenomenon?

Research Questions

1. Is the Other January Effect an international phenomenon or a peculiarity of the U.S. stock market?

2. Do other months in other countries have forecasting power similar to Januarys in the U.S.?

3. Can a pattern across months or across countries be detected?

4. Does the Other January Effect disappear internationally after it became well-known in the early 1970s?

Methodology I

- Testing Other January Effect (following Cooper et al. (2006)) by

$$r_t = \alpha + \beta JanD_t + \gamma X_t + \phi Z_{t-1} + u_t \ , \tag{1}$$

with r_t = monthly excess stock market return
α = constant
$JanD_t$ = January dummy
X_t and Z_{t-1} = vectors of control variables
u_t = error term

- $JanD_t = 1$ for February to December following $r_t > 0$ in January and 0 otherwise

- Political and calendar effect:
  - $PolD_t = 1$ when right-wing government in office and 0 otherwise
  - $HallD_t = 1$ from November to April and 0 for the remaining months

Methodology II

- Macroeconomic control variables :
  1. lagged dividend yield DIV_{t-1}
  2. lagged default spread DEF_{t-1}
  3. lagged term spread $TERM_{t-1}$
  4. lagged relative interest rate $RREL_{t-1}$
  5. expected inflation $E_{t-1}(INF_t)$ formed in $(t-1)$

- Lagged U.S. stock market returns r_{t-1}^{US}

Methodology III

- Estimation of regression (1) in eleven different specifications (for remaining months):

$$r_t = \alpha + \beta MonthD_t + \gamma X_t^* + \phi Z_{t-1} + u_t \ , \tag{2}$$

with $Month = Feb, ..., Dec$ = calendar months February to December

- X_t^* = vector of control variables including JD_t (well-known January Effect)

- Estimation and inference:
  - OLS with Newey-West standard errors (3 lags for quarterly autocorrelation)
  - bootstrapped standard errors (residual resampling, 10,000 replications)
  - General-to-specific methodology

Data

- 14 countries: Austria, Australia, Belgium, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Norway, Sweden, the U. K., and the U.S.
- Sample period: January 1970 to December 2006 for most countries
- Stock index data and dividend yields (MSCI)
- Returns on corporate bonds (Global Financial Data (GFD) and national sources)
- Short-term interest rates, long-term government bond yields and inflation rates (IFS)

Empirical Results I

Table 1: The Other January Effect

Country	Model	Regression coefficients (p-values)										$\bar{R}^2$
		$Constant$	$JanD_t$	$PolD_t$	$HallD_t$	DIV_{t-1}	DEF_{t-1}	$TERM_{t-1}$	$RREL_{t-1}$	$E_{t-1}(INF_t)$	r_{t-1}^{US}	
Austria	General	−1.91	0.45	1.05	1.81	0.57	−0.18	0.14	0.26	−0.23	0.24	0.067
		(0.155)	(0.515)	(0.142)	(0.000)***	(0.188)	(0.808)	(0.473)	(0.316)	(0.094)	(0.001)***	
		[0.082]*	[0.466]	[0.154]	[0.001]***	[0.204]	[0.849]	[0.562]	[0.368]	[0.149]	[0.000]***	
	Specific	−1.03	0.16	1.19	1.81	–	–	–	–	–	0.24	0.071
		(0.013)**	(0.777)	(0.051)*	(0.000)***						(0.001)***	
		[0.021]**	[0.762]	[0.076]*	[0.001]***						[0.000]***	
Australia	General	−2.35	0.03	0.47	0.68	0.72	0.24	0.15	−0.16	−0.19	0.16	0.016
		(0.297)	(0.958)	(0.473)	(0.241)	(0.184)	(0.665)	(0.637)	(0.615)	(0.163)	(0.007)***	
		[0.112]	[0.967]	[0.457]	[0.246]	[0.027]**	[0.639]	[0.585]	[0.496]	[0.136]	[0.015]**	
	Specific	1.77	−0.25	–	–	–	–	–	–	–	0.16	0.010
		(0.655)	(0.636)								(0.008)***	
		[0.707]	[0.672]								[0.016]**	
Belgium	General	−1.18	0.86	−0.75	1.62	0.40	−0.18	0.08	−0.19	−0.31	0.15	0.063
		(0.214)	(0.183)	(0.267)	(0.000)***	(0.026)**	(0.620)	(0.672)	(0.535)	(0.001)***	(0.009)***	
		[0.183]	[0.121]	[0.260]	[0.000]***	[0.026]**	[0.531]	[0.748]	[0.561]	[0.003]***	[0.005]***	
	Specific	−0.07	0.66	–	1.57	–	–	–	–	−0.21	0.15	0.062
		(0.907)	(0.277)		(0.000)***					(0.003)***	(0.005)***	
		[0.881]	[0.197]		[0.000]***					[0.005]***	[0.004]***	
Canada	General	−0.89	−0.37	−0.30	0.85	0.784	−0.44	0.12	−0.10	−0.26	0.12	0.020
		(0.554)	(0.409)	(0.664)	(0.068)*	(0.121)	(0.572)	(0.637)	(0.664)	(0.056)*	(0.024)**	
		[0.494]	[0.448]	[0.643]	[0.075]*	[0.065]*	[0.564]	[0.595]	[0.637]	[0.058]*	[0.027]**	
	Specific	−0.17	−0.24	–	0.85	–	–	–	–	–	0.12	0.014
		(0.694)	(0.624)		(0.082)*						(0.030)**	
		[0.690]	[0.619]		[0.080]*						[0.031]**	
Denmark	General	−0.44	0.67	−0.26	0.22	0.52	−0.21	−0.01	−0.23	−0.23	0.02	0.022
		(0.686)	(0.306)	(0.685)	(0.675)	(0.004)***	(0.489)	(0.913)	(0.078)*	(0.007)***	(0.754)	
		[0.642]	[0.238]	[0.643]	[0.658]	[0.008]***	[0.472]	[0.922]	[0.089]*	[0.013]**	0.748	
	Specific	−0.78	0.76	–	–	0.49	–	–	−0.24	−0.22	–	0.033
		(0.325)	(0.238)			(0.005)***			(0.009)***	(0.003)***		
		[0.234]	[0.177]			[0.009]***			[0.022]**	[0.012]**		

Table 1 (continued): The Other January Effect

Country	Model	Regression coefficients (p-values)										$\bar{R}^2$
		$Constant$	$JanD_t$	$PolD_t$	$HallD_t$	DIV_{t-1}	DEF_{t-1}	$TERM_{t-1}$	$RREL_{t-1}$	$E_{t-1}(INF_t)$	r_{t-1}^{US}	
France	General	−1.56	−0.04	−1.95	1.98	1.17	1.05	0.31	−0.18	−0.59	0.13	0.074
		(0.132)	(0.954)	(0.001)***	(0.000)***	(0.000)***	(0.147)	(0.222)	(0.396)	(0.000)***	(0.073)*	
		[0.106]	[0.948]	[0.002]***	[0.000]***	[0.001]***	[0.154]	[0.194]	[0.425]	[0.001]***	[0.045]**	
	Specific	−1.32	−0.04	−1.93	1.99	1.09	–	–	−0.39	−0.47	0.13	0.072
		(0.181)	(0.957)	(0.001)***	(0.000)***	(0.001)***			(0.062)*	(0.000)***	(0.068)*	
		[0.257]	[0.949]	[0.003]***	[0.000]***	[0.001]***			[0.080]*	[0.001]***	[0.045]**	
Germany	General	−3.27	0.95	1.34	1.41	1.08	−0.22	0.06	−0.36	−0.48	0.15	0.055
		(0.051)*	(0.121)	(0.100)*	(0.008)***	(0.033)**	(0.809)	(0.732)	(0.054)*	(0.011)**	(0.061)*	
		[0.046]**	[0.136]	[0.075]*	[0.012]**	[0.040]**	[0.799]	[0.799]	[0.148]	[0.053]*	[0.012]**	
	Specific	−3.42	1.01	1.40	1.40	1.12	–	–	−0.39	−0.49	0.16	0.059
		(0.030)**	(0.097)*	(0.074)*	(0.008)***	(0.027)**			(0.009)***	(0.013)**	(0.060)*	
		[0.010]***	[0.104]	[0.039]**	[0.012]**	[0.030]**			[0.042]**	[0.029]**	[0.012]**	
Italy	General	−2.64	0.56	−2.11	2.00	0.99	−1.05	−1.05	0.35	−0.03	0.17	0.052
		(0.040)**	(0.410)	(0.011)**	(0.002)***	(0.025)**	(0.180)	(0.113)	(0.233)	(0.661)	(0.033)**	
		[0.057]*	0.452	[0.030]**	[0.002]***	[0.032]**	[0.251]	[0.157]	[0.270]	[0.651]	[0.020]*	
	Specific	−2.53	0.34	−2.42	1.96	0.95	–	–	–	–	0.15	0.055
		(0.045)**	(0.612)	(0.001)***	(0.003)***	(0.030)**					(0.046)**	
		[0.059]**	[0.612]	[0.001]***	[0.002]***	[0.032]**					[0.033]**	
Japan	General	−1.44	0.41	0.08	1.38	0.90	−0.23	−0.05	−0.27	−0.21	0.17	0.057
		(0.341)	(0.509)	(0.954)	(0.007)***	(0.019)**	(0.577)	(0.855)	(0.260)	(0.023)**	(0.002)***	
		[0.304]	[0.470]	[0.952]	[0.007]***	[0.018]**	[0.590]	[0.871]	[0.272]	[0.039]**	[0.003]***	
	Specific	−1.48	0.44	–	1.37	0.95	–	–	–	−0.22	0.18	0.063
		(0.045)**	(0.476)		(0.007)***	(0.011)**				(0.001)***	(0.002)***	
		[0.014]**	[0.411]		[0.007]***	[0.004]***				[0.001]***	[0.002]***	
The Netherlands	General	−1.73	1.08	−0.38	1.77	0.45	−0.41	0.23	−0.20	−0.44	0.13	0.083
		(0.111)	(0.064)*	(0.612)	(0.000)***	(0.023)**	(0.493)	(0.172)	(0.118)	(0.004)***	(0.062)*	
		[0.075]*	[0.053]*	[0.604]	[0.000]***	[0.039]**	[0.530]	[0.227]	[0.249]	[0.004]***	[0.014]**	
	Specific	−1.89	0.95	–	1.76	0.38	–	0.41	–	−0.44	0.14	0.085
		(0.030)**	(0.094)*		(0.000)***	(0.043)**		(0.000)***		(0.000)***	(0.056)*	
		[0.019]**	[0.086]*		[0.000]***	[0.045]**		[0.002]***		[0.000]***	[0.012]**	
Norway	General	−4.64	2.13	−0.23	0.77	1.57	1.39	−0.04	0.03	−0.54	0.10	0.050
		(0.005)***	(0.017)**	(0.822)	(0.273)	(0.003)***	(0.042)**	(0.865)	(0.906)	(0.001)***	(0.404)	
		[0.001]***	[0.012]**	[0.783]	[0.298]	[0.000]***	[0.042]**	[0.889]	[0.923]	[0.000]***	[0.240]	
	Specific	−4.40	2.12	–	–	1.56	1.49	–	–	−0.53	–	0.055
		(0.009)***	(0.014)**			(0.001)***	(0.023)**			(0.000)***		
		[0.001]***	[0.011]**			[0.000]***	[0.024]**			[0.000]***		

Table 1 (continued): The Other January Effect

Country	Model	Regression coefficients (p-values)										$\bar{R}^2$
		$Constant$	$JanD_t$	$PolD_t$	$HallD_t$	DIV_{t-1}	DEF_{t-1}	$TERM_{t-1}$	$RREL_{t-1}$	$E_{t-1}(INF_t)$	r_{t-1}^{US}	
Sweden	General	−0.75	−0.27	−0.21	1.83	0.48	0.04	−0.13	−0.36	−0.16	0.18	0.032
		(0.547)	(0.756)	(0.814)	(0.005)***	(0.283)	(0.915)	(0.601)	(0.117)	(0.238)	(0.049)**	
		[0.449]	[0.706]	[0.812]	[0.004]***	[0.127]	[0.909]	[0.576]	[0.118]	[0.121]	[0.011]**	
	Specific	−0.26	−0.44	–	1.84	–	–	–	–	–	0.20	0.034
		(0.759)	(0.588)		(0.005)***						(0.034)**	
		[0.689]	[0.525]		[0.004]***						[0.006]***	
U.K.	General	−1.98	0.85	−0.02	1.58	0.53	−0.37	0.00	−0.13	−0.13	0.06	0.020
		(0.127)	(0.148)	(0.970)	(0.002)***	(0.198)	(0.481)	(0.994)	(0.472)	(0.104)	(0.408)	
		[0.076]*	[0.134]	[0.968]	[0.003]***	[0.091]*	[0.432]	[0.995]	[0.515]	[0.077]*	[0.296]	
	Specific	−1.10	0.82	–	1.62	–	–	–	–	–	–	0.023
		(0.047)**	(0.161)		(0.002)***							
		[0.024]**	[0.133]		[0.002]***							
U.S.	General	−1.04	0.85	−0.82	0.74	0.76	0.31	−0.18	−0.26	−0.37	–	0.042
		(0.445)	(0.061)*	(0.062)*	(0.052)*	(0.006)***	(0.543)	(0.519)	(0.347)	(0.010)**		
		[0.450]	[0.061]*	[0.095]*	[0.077]*	[0.002]***	[0.545]	[0.440]	[0.316]	[0.004]***		
	Specific	−1.31	1.05	–	0.80	0.66	–	–	–	−0.32	–	0.040
		(0.072)*	(0.018)**		(0.034)**	(0.006)***				(0.005)***		
		[0.054]*	[0.018]**		[0.058]*	[0.003]***				[0.002]***		

Empirical Results II

Table 2: Predictive Power of February to December

Country	Model	Regression coefficients (p-values)										
		$FebD_t$	$MarD_t$	$AprD_t$	$MayD_t$	$JunD_t$	$JulD_t$	$AugD_t$	$SepD_t$	$OctD_t$	$NovD_t$	$DecD_t$
Austria	General	0.89	0.60	0.21	1.42	1.22	0.72	0.32	2.01	1.66	0.06	0.26
		(0.060)*	(0.340)	(0.743)	(0.028)**	(0.085)*	(0.243)	(0.656)	(0.032)**	(0.009)***	(0.925)	(0.787)
	Specific	0.74	0.50	0.24	1.24	0.91	0.70	0.39	1.93	1.34	0.03	0.28
		(0.151)	(0.377)	(0.671)	(0.044)**	(0.157)	(0.157)	(0.518)	(0.017)**	(0.018)**	(0.953)	(0.749)
Australia	General	0.61	0.51	0.31	0.08	0.07	−0.47	0.65	0.78	0.13	−0.16	0.74
		(0.329)	(0.391)	(0.579)	(0.894)	(0.923)	(0.412)	(0.209)	(0.159)	(0.785)	(0.771)	(0.271)
	Specific	0.47	0.33	0.09	−0.14	0.39	−0.63	0.47	0.65	−0.13	−0.09	0.71
		(0.450)	(0.565)	(0.876)	(0.800)	(0.547)	(0.218)	(0.390)	(0.210)	(0.798)	(0.872)	(0.341)
Belgium	General	1.25	−0.26	−0.47	1.61	0.49	0.57	0.66	0.25	−0.10	0.80	−0.26
		(0.016)**	(0.651)	(0.364)	(0.011)**	(0.446)	(0.250)	(0.244)	(0.582)	(0.858)	(0.154)	(0.663)
	Specific	1.27	−0.09	−0.27	1.16	0.03	0.65	0.77	0.21	−0.17	0.76	−0.57
		(0.009)*	(0.868)	(0.607)	(0.011)**	(0.959)	(0.194)	(0.111)	(0.666)	(0.741)	(0.167)	(0.298)
Canada	General	0.45	−0.12	0.94	−0.08	0.53	0.05	0.57	0.83	0.54	1.01	1.55
		(0.365)	(0.802)	(0.060)*	(0.896)	(0.297)	(0.915)	(0.235)	(0.192)	(0.332)	(0.058)*	(0.026)**
	Specific	0.45	−0.18	0.80	−0.15	0.42	0.05	0.69	0.68	0.48	0.96	1.47
		(0.364)	(0.724)	(0.108)	(0.794)	(0.403)	(0.917)	(0.141)	(0.288)	(0.328)	(0.070)*	(0.025)**
Denmark	General	0.66	−0.59	1.34	−0.05	1.40	0.44	1.13	2.80	0.91	0.39	0.49
		(0.237)	(0.316)	(0.029)**	(0.926)	(0.016)**	(0.463)	(0.043)**	(0.000)***	(0.144)	(0.519)	(0.512)
	Specific	0.49	−0.67	1.34	−0.06	1.32	0.35	1.11	2.53	0.83	0.50	0.42
		(0.392)	(0.252)	(0.029)**	(0.913)	(0.020)**	(0.516)	(0.030)**	(0.000)***	(0.150)	(0.385)	(0.510)
France	General	−0.06	0.80	1.07	0.67	1.56	−0.15	−0.19	0.64	−0.84	0.73	0.50
		(0.922)	(0.227)	(0.169)	(0.276)	(0.034)**	(0.790)	(0.750)	(0.312)	(0.194)	(0.268)	(0.462)
	Specific	0.01	0.89	1.13	0.76	1.67	−0.11	−0.08	0.65	−0.83	0.64	0.41
		(0.985)	(0.186)	(0.099)*	(0.207)	(0.009)***	(0.849)	(0.903)	(0.311)	(0.198)	(0.300)	(0.545)
Germany	General	0.82	−1.63	0.70	1.03	1.30	−0.95	−0.25	0.99	−0.08	0.94	1.50
		(0.113)	(0.007)***	(0.224)	(0.084)*	(0.032)**	(0.118)	(0.617)	(0.131)	(0.874)	(0.085)*	(0.122)
	Specific	0.63	−1.64	0.69	0.97	1.25	−0.99	−0.08	1.32	−0.18	1.02	1.47
		(0.254)	(0.006)***	(0.216)	(0.078)*	(0.033)**	(0.084)*	(0.879)	(0.013)**	(0.736)	(0.076)*	(0.058)*
Italy	General	1.64	0.07	1.92	1.57	2.53	0.88	1.16	2.16	−0.68	−0.69	0.55
		(0.005)***	(0.926)	(0.012)**	(0.022)**	(0.000)***	(0.233)	(0.117)	(0.003)***	(0.324)	(0.404)	(0.515)
	Specific	1.48	−0.27	1.79	1.50	2.55	0.90	0.72	2.18	−0.84	−0.33	0.36
		(0.015)**	(0.742)	(0.009)***	(0.024)**	(0.000)***	(0.212)	(0.284)	(0.003)***	(0.201)	(0.637)	(0.638)

Table 2 (continued): Predictive Power of February to December

Country	Model	Regression coefficients (p-values)										
		$FebD_t$	$MarD_t$	$AprD_t$	$MayD_t$	$JunD_t$	$JulD_t$	$AugD_t$	$SepD_t$	$OctD_t$	$NovD_t$	$DecD_t$
Japan	General	0.46	0.25	−0.31	0.71	0.70	0.21	1.11	0.81	−0.47	0.47	−0.14
		(0.424)	(0.641)	(0.621)	(0.201)	(0.187)	(0.712)	(0.021)**	(0.132)	(0.333)	(0.356)	(0.808)
	Specific	0.51	0.27	−0.31	0.60	0.57	0.23	0.92	0.73	−0.37	0.32	−0.30
		(0.335)	(0.599)	(0.600)	(0.275)	(0.283)	(0.684)	(0.067)*	(0.165)	(0.457)	(0.546)	(0.601)
The Netherlands	General	1.39	−0.75	1.23	0.53	0.30	−0.63	−0.11	0.80	−0.28	−0.47	0.99
		(0.009)***	(0.122)	(0.119)	(0.386)	(0.548)	(0.307)	(0.827)	(0.123)	(0.560)	(0.326)	(0.180)
	Specific	1.41	−0.83	1.12	0.60	0.56	−0.74	−0.27	1.18	−0.25	−0.56	1.26
		(0.006)***	(0.086)*	(0.160)	(0.306)	(0.246)	(0.180)	(0.575)	(0.020)**	(0.602)	(0.208)	(0.047)*
Norway	General	2.08	1.28	1.46	0.36	0.79	−0.58	1.28	−0.39	0.15	0.39	0.79
		(0.031)**	(0.172)	(0.108)	(0.647)	(0.278)	(0.484)	(0.117)	(0.692)	(0.850)	(0.626)	(0.396)
	Specific	2.03	1.03	1.53	0.38	0.60	−0.47	1.16	−0.42	0.05	0.30	0.70
		(0.041)**	(0.214)	(0.053)*	(0.643)	(0.425)	(0.558)	(0.147)	(0.639)	(0.952)	(0.715)	(0.464)
Sweden	General	0.32	−1.05	0.38	1.77	−0.71	−0.04	−0.73	1.13	1.40	0.78	0.21
		(0.649)	(0.135)	(0.610)	(0.026)**	(0.350)	(0.963)	(0.306)	(0.151)	(0.030)**	(0.272)	(0.746)
	Specific	0.20	−0.87	0.09	1.74	−0.40	−0.22	−0.77	1.39	1.26	0.93	−0.14
		(0.765)	(0.218)	(0.899)	(0.011)**	(0.550)	(0.790)	(0.249)	(0.056)*	(0.037)**	(0.137)	(0.834)
U.K.	General	0.54	−0.28	−0.38	1.04	0.20	0.33	−0.33	−0.79	−0.70	−0.33	2.43
		(0.449)	(0.605)	(0.557)	(0.061)*	(0.709)	(0.555)	(0.621)	(0.178)	(0.225)	(0.634)	(0.014)**
	Specific	0.51	−0.28	−0.33	1.08	0.03	0.24	−0.36	−0.78	−0.61	−0.21	1.97
		(0.354)	(0.649)	(0.608)	(0.033)**	(0.953)	(0.634)	(0.590)	(0.171)	(0.283)	(0.761)	(0.035)**
U.S.	General	0.69	−0.54	0.58	0.82	0.08	0.40	−0.12	−0.02	0.84	−0.05	−0.47
		(0.147)	(0.237)	(0.191)	(0.066)*	(0.850)	(0.394)	(0.788)	(0.969)	(0.077)	(0.921)	(0.433)
	Specific	0.77	−0.52	0.79	0.77	0.07	0.43	−0.19	0.07	0.63	0.00	−0.41
		(0.099)*	(0.233)	(0.076)*	(0.082)*	(0.866)	(0.341)	(0.650)	(0.865)	(0.140)	(1.000)	(0.504)

Empirical Results III

Table 3: Predictive Power of January to December in Subperiods

Country	p-values											
	$JanD_t$	$FebD_t$	$MarD_t$	$AprD_t$	$MayD_t$	$JunD_t$	$JulD_t$	$AugD_t$	$SepD_t$	$OctD_t$	$NovD_t$	$DecD_t$
Panel A. Sample Period: 1980:1 − 2006:12												
Austria	(0.383)	(0.067)*	(0.188)	(0.996)	(0.101)	(0.033)**	(0.295)	(0.429)	(0.032)**	(0.011)**	(0.468)	(0.490)
Australia	(0.513)	(0.078)*	(0.665)	(0.552)	(0.648)	(0.275)	(0.124)	(0.176)	(0.376)	(0.910)	(0.174)	(0.583)
Belgium	(0.064)*	(0.010)***	(0.802)	(0.328)	(0.016)**	(0.410)	(0.267)	(0.387)	(0.052)	(0.961)	(0.285)	(0.233)
Canada	(0.673)	(0.046)**	(0.417)	(0.169)	(0.179)	(0.226)	(0.762)	(0.917)	(0.224)	(0.002)***	(0.032)**	(0.214)
Denmark	(0.181)	(0.157)	(0.508)	(0.010)***	(0.883)	(0.023)**	(0.259)	(0.651)	(0.001)***	(0.599)	(0.289)	(0.920)
France	(0.672)	(0.948)	(0.943)	(0.392)	(0.389)	(0.055)*	(0.808)	(0.466)	(0.301)	(0.667)	(0.274)	(0.469)
Germany	(0.062)*	(0.054)*	(0.038)**	(0.672)	(0.046)**	(0.066)*	(0.152)	(0.884)	(0.042)**	(0.818)	(0.518)	(0.400)
Italy	(0.211)	(0.007)***	(0.429)	(0.167)	(0.325)	(0.000)***	(0.002)***	(0.944)	(0.002)***	(0.653)	(0.705)	(0.097)*
Japan	(0.600)	(0.679)	(0.237)	(0.474)	(0.720)	(0.100)*	(0.465)	(0.055)	(0.135)	(0.777)	(0.267)	(0.548)
The Netherlands	(0.072)*	(0.005)***	(0.409)	(0.152)	(0.558)	(0.105)	(0.312)	(0.947)	(0.048)**	(0.589)	(0.614)	(0.262)
Norway	(0.138)	(0.325)	(0.904)	(0.429)	(0.605)	(0.086)*	(0.337)	(0.163)	(0.911)	(0.755)	(0.885)	(0.197)
Sweden	(0.620)	(0.528)	(0.536)	(0.761)	(0.020)**	(0.403)	(0.473)	(0.387)	(0.183)	(0.125)	(0.138)	(0.939)
U.K.	(0.585)	(0.191)	(0.187)	(0.766)	(0.264)	(0.830)	(0.818)	(0.521)	(0.986)	(0.684)	(0.909)	(0.203)
U.S.	(0.455)	(0.674)	(0.033)**	(0.200)	(0.044)**	(0.516)	(0.540)	(0.711)	(0.247)	(0.060)*	(0.900)	(0.784)
Panel B. Sample Period: 1990:1 − 2006:12												
Austria	(0.330)	(0.545)	(0.414)	(0.005)***	(0.057)*	(0.004)***	(0.290)	(0.522)	(0.229)	(0.258)	(0.807)	(0.932)
Australia	(0.061)*	(0.002)***	(0.163)	(0.681)	(0.633)	(0.653)	(0.615)	(0.653)	(0.576)	(0.148)	(0.113)	(0.845)
Belgium	(0.010)***	(0.046)**	(0.442)	(0.763)	(0.033)**	(0.002)***	(0.737)	(0.867)	(0.021)**	(0.215)	(0.002)***	(0.736)
Canada	(0.601)	(0.080)*	(0.862)	(0.024)**	(0.763)	(0.057)*	(0.545)	(0.171)	(0.004)***	(0.010)***	(0.012)**	(0.643)
Denmark	(0.908)	(0.414)	(0.556)	(0.026)**	(0.692)	(0.001)***	(0.809)	(0.141)	(0.001)***	(0.465)	(0.087)*	(0.240)
France	(0.690)	(0.998)	(0.765)	(0.577)	(0.495)	(0.076)*	(0.768)	(0.543)	(0.078)*	(0.208)	(0.032)	(0.186)
Germany	(0.077)*	(0.006)***	(0.038)**	(0.916)	(0.116)	(0.011)**	(0.594)	(0.907)	(0.114)	(0.192)	(0.031)**	(0.538)
Italy	(0.726)	(0.321)	(0.943)	(0.162)	(0.746)	(0.115)	(0.073)*	(0.509)	(0.325)	(0.304)	(0.930)	(0.225)
Japan	(0.959)	(0.290)	(0.666)	(0.388)	(0.357)	(0.390)	(0.093)*	(0.077)*	(0.600)	(0.363)	(0.180)	(0.306)
The Netherlands	(0.422)	(0.005)***	(0.454)	(0.508)	(0.132)	(0.021)**	(0.998)	(0.731)	(0.372)	(0.217)	(0.381)	(0.606)
Norway	(0.040)**	(0.794)	(0.265)	(0.856)	(0.270)	(0.024)**	(0.285)	(0.041)**	(0.119)	(0.880)	(0.303)	(0.962)
Sweden	(0.971)	(0.839)	(0.530)	(0.224)	(0.008)***	(0.180)	(0.608)	(0.609)	(0.414)	(0.563)	(0.094)*	(0.166)
U.K.	(0.787)	(0.009)***	(0.233)	(0.998)	(0.043)**	(0.736)	(0.483)	(0.624)	(0.422)	(0.540)	(0.360)	(0.060)*
U.S.	(0.277)	(0.057)*	(0.221)	(0.007)***	(0.178)	(0.090)*	(0.508)	(0.828)	(0.192)	(0.024)**	(0.040)**	(0.108)

Summary and Conclusion

- Other January Effect: Only in 3 out of 14 countries (full sample)!
- Systematically predicting stock returns based on previous return observations

  → Impossible!
- Other January Effect result of snooping U.S. stock market data

  → The anomaly is nothing more than a statistical artifact!

Appendix

- Excess stock return in % per month

$$r_t = \left(\ln(I_t/I_{t-1}) - \ln(1 + \frac{i_t^s}{12 \cdot 100}) \right) \cdot 100 \ ,$$

with $I_t =$ value of the performance index

(value-weighted performance indices with gross dividends from MSCI)

$i_t^s =$ short-term interest rate in % p. a.

- Dividend yields extracted from price indices P_t and performance indices I_t (both from MSCI) by

$$DY_t = (I_t/I_{t-1})(P_{t-1}/P_t) \ ,$$

the simple compounded $DY_t \rightarrow$ continuously compounded dividend yields $DIV_t = \ln(1 + DY_t) \cdot 100$