Internet Appendix for "Style-related Comovement: Fundamentals or Labels?"*

This Internet Appendix contains eight tables that present the results of various robustness checks. I now briefly describe the results contained in each of these tables.

Table IA.I Calendar-time Tests
This table provides results of calendar-time tests as an alternative approach to measure the influence of the S&P/Barra labels on comovement.

Table IA.II Robustness Check for Table II: Stale Closing Prices
The results of this table illustrate the prevalence of stale closing prices among stocks that switch between the S&P/Barra indices.

Table IA.III Robustness Check for Table II: Remove Stocks With Stale Closing Prices
I repeat the analysis of Table II of the main text after removing stocks with potentially stale closing prices and report results in this table.

Table IA.IV Robustness Check for Table II: Weekly Data
I repeat the analysis of Table II of the main text using weekly, rather than daily, data and report results in this table.

Table IA.V Robustness Check for Table II: Including Lagged Terms
I repeat the analysis of Table II of the paper after including lagged stock returns and lagged index returns in the regressions to measure comovement.

Table IA.VI Robustness Check for Table II: Univariate Measures of Comovement
The results of this table illustrate how univariate measures of comovement (regression slope and correlation) change when a stock switches to one of the S&P/Barra indices.

Table IA.VII Robustness Check for Table III: Weekly Data
I repeat the analysis of Table III of the paper using weekly, rather than daily, data and report the results in this table.

Table IA.VIII Weighted Turnover Results
I repeat the analysis of Table III using a weighted average to measure aggregate changes in comovement, rather than an equally weighted average. The weights are a function of the number of stocks switching to a given index.

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* Boyer, Brian, [year], Internet Appendix for "Style-related Comovement: Fundamentals or Labels?" *Journal of Finance* [vol#], [pages], http://www.afajof.org/supplements.asp. Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting information supplied by the authors. Any queries (other than missing material) should be directed to the authors of the article.

Table IA.I
Calendar-Time Tests

Calendar-time portfolio returns are jointly regressed on the returns of the S&P/Barra Value and Growth indices in the following manner,

$$r_{Gt}^{C} = \beta_{0G} + \beta_{GG} r_{Gt} + \beta_{GV} r_{Vt} + e_{Gt}$$
$$r_{Vt}^{C} = \beta_{0V} + \beta_{VG} r_{Gt} + \beta_{VV} r_{Vt} + e_{Vt},$$

where the dependent variables are monthly returns on growth and value "calendar portfolios," and r_{Gt} and r_{Vt} are returns on the S&P/Barra Growth and Value indices. The growth calendar portfolio is composed of stocks that are in the Growth index and either just switched from the value index or will switch to the value index in the subsequent rebalancing month. Similarly, the value calendar portfolio is composed of stocks that are in the value index and either just switched from the growth index or will switch to the growth index in the subsequent rebalancing month. Portfolio returns are value-weighted and portfolios are rebalanced at the end of each June and December. I omit stocks in the calendar portfolios that switch indices when constructing index returns. The symbol $Diff_{i,G}$ represents β_{GG}-β_{VG} for sample i={*T, HT, C*}, where *T*, *HT*, and *C* refer to the test, high turnover, and control samples, respectively. Similarly, the symbol $Diff_{i,V}$ represents β_{VV}-β_{GV} for sample *i*. GMM *t*-statistics are in parentheses.

Panel A. 1992-2004, Test Sample				
	Growth Calendar Portfolio		Value Calendar Portfolio	
	β_{GG}	β_{GV}	β_{VG}	β_{VV}
	0.875	0.235	0.339	0.920
t-statistics	(3.65)	(1.11)	(3.97)	(9.61)
	$Diff_{T,G}$	$Diff_{T,G}$-$Diff_{C,G}$	$Diff_{T,V}$	$Diff_{T,V}$-$Diff_{C,V}$
	0.537	0.407	0.685	0.512
t-statistics	(1.86)	(1.28)	(2.71)	(1.82)
Panel B. 1998-2002, High Turnover Sample				
	Growth Calendar Portfolio		Value Calendar Portfolio	
	β_{GG}	β_{GV}	β_{VG}	β_{VV}
	1.060	0.019	0.365	0.983
t-statistics	(4.31)	(0.08)	(3.10)	(8.36)
	$Diff_{HT,G}$	$Diff_{HT,G}$-$Diff_{C,G}$	$Diff_{HT,V}$	$Diff_{HT,V}$-$Diff_{C,V}$
	0.695	0.565	0.964	0.790
t-statistics	(2.14)	(1.61)	(3.10)	(2.36)
Panel C. 1981-1991, Control Sample				
	Growth Calendar Portfolio		Value Calendar Portfolio	
	β_{GG}	β_{GV}	β_{VG}	β_{VV}
	0.498	0.477	0.368	0.651
t-statistics	(6.23)	(6.22)	(4.41)	(8.55)
	$Diff_{C,G}$		$Diff_{C,V}$	
	0.130		0.174	
t-statistics	(0.98)		(1.41)	

Table IA.II
Robustness Check for Table II: Stale Closing Prices

I use the TAQ database to examine the time of the last trade on each day for each stock that appears in the daily data set of Table II. For each stock i, the percentage, p_i, of daily closing prices recorded earlier than 3:45 PM during the five-month pre- and post-event windows is calculated. In this table I report summary statistics across stocks for p_i. Rows marked n>0.05 report the number of stocks for which p_i is greater than 5%.

Panel A. Stocks that Switch from the Value Index to the Growth Index

	1992-2004 (Test)				1998-2002 (High Turnover)				1981-1991 (Control)			
	All Switchers n=380		Index Balancers n=36		All Switchers n=152		Index Balancers n=24		All Switchers n=233		Index Balancers n=24	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean(p_i)	0.007	0.012	0.006	0.011	0.006	0.011	0.005	0.012	0.093	0.088	0.090	0.072
Stdev(p_i)	0.009	0.010	0.007	0.008	0.009	0.009	0.008	0.009	0.145	0.131	0.144	0.099
Min(p_i)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max(p_i)	0.066	0.085	0.019	0.019	0.048	0.037	0.019	0.019	0.747	0.651	0.458	0.347
N>0.05	1	1	0	0	0	0	0	0	89	95	9	9

Panel B. Stocks that Switch from the Growth Index to the Value Index

	1992-2004 (Test)				1998-2002 (High Turnover)				1981-1991 (Control)			
	All Switchers n=487		Index Balancers n=158		All Switchers n=198		Index Balancers n=37		All Switchers n=307		Index Balancers n=111	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean(p_i)	0.010	0.009	0.009	0.012	0.010	0.005	0.005	0.007	0.066	0.063	0.071	0.058
Stdev(p_i)	0.009	0.010	0.009	0.010	0.008	0.008	0.006	0.008	0.109	0.115	0.106	0.088
Min(p_i)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max(p_i)	0.085	0.066	0.038	0.038	0.019	0.028	0.019	0.028	0.639	0.695	0.495	0.465
N>0.05	1	1	0	0	0	0	0	0	103	92	39	39

Table IA.III
Robustness Check for Table II: Remove Stocks With Stale Closing Prices

The regressions that produce the results for this table exclude stocks with p_i>0.05 as defined in Table IA.II, and stocks for which TAQ data could not be found to produce the results of Table IA.II. All other aspects of the analysis for Table II remain the same. Daily log stock returns (r_{it}) are regressed on the log index returns (r_{Gt} and r_{Vt}),

$$r_{it} = \beta_{i0} + \beta_{iG} r_{Gt} + \beta_{iV} r_{Vt} + e_{it} .$$

The regression is estimated separately over a "pre-event window" and a "post-event window" for each stock that switches among the S&P/Barra indices where the event-month is the month in which the stock switches indices, either June or December for some year. The pre- and post-event windows are the five-month intervals before and after each event month. I exclude stocks switching indices when calculating index returns to avoid measuring effects associated with changes in index composition. For each stock, I calculate the change in each regression parameter as the post-event estimate minus the pre-event estimate. Columns labeled "Δ" report the average change in parameter estimates across stocks that switch to either the Growth or Value index. Columns labeled "PE" report average parameter estimates over pre-event windows. Robust *t*-statistics and bootstrap *p*-values, both of which take into account overlapping estimation windows, are in parentheses. Index-balancers are stocks that switch to the Growth index with a negative return over the pre-event window or stocks that switch to the Value index with a positive return over the pre-event window. Difference-in-difference statistics on the far right of the table compare estimates of the average change in regression parameters across the test and control samples (Test-Control) and across the high turnover and control samples (HT-Control). Columns labeled "All" report difference-in-difference statistics for all stocks that switch, while columns labeled "IB" report difference-in-difference results for index-balancers. The number of stocks switching for each sample is indicated by *n*. To be included in the analysis, a stock must remain in the same S&P/Barra index throughout the entire pre-event window and in the same S&P/Barra index throughout the entire post-event window. I exclude stocks with prices less than $5 in either window. Results for the control sample exclude the crash of October 1987. Significance of the one-tailed tests described in the paper at the 1%, 5%, and 10% levels is indicated respectively by ***, **, and *.

Panel A. Stocks that Switch from the Value Index to the Growth Index

	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991				Difference-in-Difference Statistics			
	All Switchers *n*=378		Index-Balancers *n*=36		All Switchers *n*=152		Index-Balancers *n*=24		All Switchers *n*=123		Index-Balancers *n*=13		Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\overline{\beta}_G$	0.020	0.326	0.157	0.266	0.107	0.305	0.165	0.182	-0.047	0.602	-0.452	0.88	0.067	0.610	0.154	0.617
t-stat	(0.60)		(1.66)**		(2.13)**		(1.60)*		-(0.56)		-(2.29)		(0.74)	(2.79)**	(1.58)	(2.77)**
$\overline{\beta}_V$	0.056	0.586	-0.032	0.568	0.006	0.565	-0.166	0.678	0.113	0.428	0.488	0.14	-0.057	-0.520	-0.107	-0.654
t-stat	(1.61)		-(0.32)		(0.12)		-(1.44)*		(1.27)		(2.05)		-(0.59)	-(2.01)**	-(1.06)**	-(2.47)***

Table IA.III – *Continued*

Panel B. Stocks that Switch from the Growth Index to the Value Index																
	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991							
	All Switchers		Index-Balancers		All Switchers		Index-Balancers		All Switchers		Index-Balancers		Difference-in-Difference Statistics			
	n=485		*n*=158		*n*=198		*n*=37		*n*=196		*n*=67		Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\overline{\beta}_G$	-0.039	0.416	-0.084	0.35	-0.067	0.501	-0.343	0.441	-0.077	0.464	0.149	0.31	0.038	-0.233	0.010	-0.492
t-stat	-(1.19)		-(1.83)**		-(1.31)*		-(4.76)***		-(1.37)*		(1.88)		(0.58)	-(2.55)***	(0.12)	-(4.60)***
$\overline{\beta}_V$	0.014	0.630	0.100	0.62	0.037	0.681	0.485	0.584	0.050	0.551	-0.081	0.65	-0.036	0.181	-0.013	0.566
t-stat	(0.39)		(2.03)**		(0.67)		(5.70)***		(0.77)		-(0.88)		-(0.50)	(1.73)**	-(0.16)	(4.52)***

Table IA.IV
Robustness Check for Table II: Weekly Data

This table replicates the analysis of Table II using weekly stock return data. Weekly stock returns (r_{it}) are regressed on the weekly index returns (r_{Gt} and r_{Vt}),

$$r_{it} = \beta_{i0} + \beta_{iG} r_{Gt} + \beta_{iV} r_{Vt} + e_{it} .$$

The return for a given week is the sum of daily log returns from Wednesday close to Wednesday close. The regression is estimated separately over a "pre-event window" and a "post-event window" for each stock that switches among the S&P\Barra indices where the event-month is the month in which the stock switches indices, either June or December for some year. The pre- and post-event windows are the eleven-month intervals before and after each event month. I exclude stocks switching indices when calculating index returns to avoid measuring effects associated with changes in index composition. For each stock, I calculate the change in each regression parameter as the post-event estimate minus the pre-event estimate. Columns labeled "Δ" report the average change in parameter estimates across stocks that switch to either the Growth or Value index. Columns labeled "PE" report average parameter estimates for pre-event windows. Robust *t*-statistics, which take into account overlapping estimation windows, are in parentheses. Difference-in-difference statistics on the far right of the table compare estimates of the average change in regression parameters across the test and control samples (Test-Control) and across the high turnover and control samples (HT-Control). Columns labeled "All" report difference-in-difference statistics for all stocks that switch, while columns labeled "IB" report difference-in-difference results for index-balancers. Index-balancers are stocks that switch to the Growth index with a negative return over the five-month pre-event window, as in Table II of the paper, or stocks that switch to the Value index with a positive return over this same window. The number of stocks switching for each sample is indicated by *n*. To be included in the analysis, a stock must remain in the same S&P/Barra index throughout the entire pre-event window and in the same S&P/Barra index throughout the entire post-event window. I exclude stocks with prices less than $5 in either window. Results for the control sample exclude the crash of October 1987. Significance of the one-tailed tests described in the paper at the 1%, 5%, and 10% levels is indicated respectively by ***, **, and *.

Panel A. Stocks that Switch from the Value Index to the Growth Index

	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991				Difference-in-Difference Statistics			
	All Switchers *n*=161		Index-Balancers *n*=18		All Switchers *n*=67		Index-Balancers *n*=11		All Switchers *n*=113		Index-Balancers *n*=9		Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\overline{\beta}_G$	0.219	0.223	0.389	0.023	0.197	0.206	0.473	-0.146	0.042	0.566	-0.352	0.558	0.177	0.741	0.155	0.825
t-stat	(2.85)***		(2.01)**		(1.82)**		(2.47)***		(0.32)		-(0.87)		(1.15)	(1.66)**	(0.90)	(1.85)**
$\overline{\beta}_V$	-0.213	0.834	-0.195	0.741	-0.318	0.712	-0.426	0.790	0.158	0.408	0.483	0.358	-0.371	-0.678	-0.475	-0.909
t-stat	-(2.93)***		-(1.10)		-(3.18)***		-(2.37)***		(1.16)		(1.06)		-(2.41)***	-(1.39)*	-(2.83)**	-(1.86)**

Table IA.IV – *Continued*

Panel B. Stocks that Switch from the Growth Index to the Value Index																
	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991							
	All Switchers		Index-Balancers		All Switchers		Index-Balancers		All Switchers		Index-Balancers		Difference-in-Difference Statistics			
	n=234		*n*=67		*n*=82		*n*=11		*n*=132		*n*=42		Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\overline{\beta}_G$	-0.269	0.509	-0.216	0.379	-0.286	0.567	-0.333	0.392	-0.299	0.651	-0.109	0.514	0.030	-0.108	0.013	-0.225
t-stat	-(3.21)***		-(2.26)**		-(2.64)***		-(2.75)***		-(2.78)***		-(0.63)		(0.22)	-0.546	(0.09)	-(1.07)
$\overline{\beta}_V$	0.191	0.642	0.231	0.659	0.186	0.665	0.355	0.750	0.204	0.477	-0.014	0.559	-0.013	0.245	-0.017	0.369
t-stat	(2.31)**		(2.18)**		(1.53)*		(2.10)**		(1.82)**		-(0.08)		-(0.10)	(1.19)	-(0.10)	(1.51)*

Table IA.V
Robustness Check for Table II: Including Lagged Terms

The regressions that produce the results for this table include lagged stock returns and lagged index returns. All other aspects of the analysis for Table II remain the same. Daily log stock returns (r_{it}) are regressed on the log index returns (r_{Gt} and r_{Vt}), lagged stock returns, and lagged index returns,

$$r_{it} = \beta_{i0} + \beta_{iG} r_{Gt} + \beta_{iV} r_{Vt} + \sum_{d=1}^{4} (\beta_i^d r_{i,t-d} + \beta_{iG}^d r_{G,t-d} + \beta_{iV}^d r_{V,t-d}) + e_{it} .$$

The regression is estimated separately over a "pre-event window" and a "post-event window" for each stock that switches among the S&P\Barra indices where the event-month is the month in which the stock switches indices, either June or December for some year. The pre- and post-event windows are the five-month intervals before and after each event month. I exclude stocks switching indices when calculating index returns to avoid measuring effects associated with changes in index composition. For each stock, I calculate the change in each regression parameter as the post-event estimate minus the pre-event estimate. Columns labeled "Δ" report the average change in parameter estimates across stocks that switch to either the Growth or Value index. Columns labeled "pre-event" report average parameter estimates over pre-event windows. Robust *t*-statistics and bootstrap *p*-values, both of which take into account overlapping estimation windows, are in parentheses. Index-balancers are stocks that switch to the Growth index with a negative return over the pre-event window or stocks that switch to the Value index with a positive return over the pre-event window. The number of stocks switching for each sample is indicated by *n*. To be included in the analysis, a stock must remain in the same S&P/Barra index throughout the entire pre-event window and in the same S&P/Barra index throughout the entire post-event window. I exclude stocks with prices less than $5 in either window. Results for the control sample exclude the crash of October 1987. Significance of the one-tailed tests described in the paper at the 1%, 5%, and 10% levels is indicated respectively by ***, **, and *. Significance of additional parameters in the regression at the 1%, 5%, and 10% levels is indicated respectively by +++, ++, and +. I do not report average values of β_{i0} .

Table IA.V — *Continued*

Panel A. Stocks that Switch from the Value Index to the Growth Index

	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991			
	All Switchers *n*=390		Index Balancers *n*=36		All Switchers *n*=152		Index Balancers *n*=24		All Switchers *n*=385		Index Balancers *n*=54	
	Δ	pre-event	Δ	pre-event	Δ	pre-event	Δ	pre-event	Δ	pre-event	Δ	pre-event
r_{Gt}	0.029	0.340^{+++}	0.182**	0.261^{+++}	0.118***	0.291^{+++}	0.200**	0.152^{+++}	-0.056	0.453^{+++}	-0.153+	0.479^{+++}
	(0.94)	(14.36)	(2.08)	(4.40)	(2.54)	(8.72)	(2.18)	(3.02)	-(1.25)	(13.89)	-(1.58)	(6.44)
r_{Vt}	0.052^{+}	0.578^{+++}	-0.026	0.588^{+++}	-0.019	0.582^{+++}	-0.210**	0.744^{+++}	0.073	0.496^{+++}	0.188++	0.416^{+++}
	(1.59)	(23.57)	-(0.27)	(9.45)	-(0.39)	(17.31)	-(1.96)	(11.49)	(1.48)	(14.13)	(1.72)	(5.10)
ret_{t-1}	0.012	-0.053^{++}	0.056	-0.072	0.022	-0.065^{+}	0.093	-0.097	0.011	0.013	-0.015	0.028
	(0.35)	-(2.18)	(0.59)	-(1.16)	(0.47)	-(1.94)	(0.87)	-(1.50)	(0.22)	(0.37)	-(0.13)	(0.34)
ret_{t-2}	0.006	-0.065^{+++}	-0.044	-0.050	-0.007	-0.059^{+}	-0.036	-0.049	0.010	-0.058^{+}	0.005	-0.051
	(0.20)	-(2.64)	-(0.46)	-(0.80)	-(0.14)	-(1.77)	-(0.34)	-(0.76)	(0.20)	-(1.65)	(0.04)	-(0.62)
ret_{t-3}	0.002	-0.020	0.000	-0.007	0.012	-0.026	0.023	-0.019	-0.006	-0.036	-0.042	-0.029
	(0.07)	-(0.82)	(0.00)	-(0.12)	(0.26)	-(0.78)	(0.22)	-(0.29)	-(0.13)	-(1.02)	-(0.38)	-(0.35)
ret_{t-4}	-0.010	-0.027	-0.004	-0.028	-0.009	-0.036	-0.005	-0.038	0.016	-0.047	-0.013	-0.033
	-(0.31)	-(1.11)	-(0.04)	-(0.46)	-(0.19)	-(1.08)	-(0.05)	-(0.58)	(0.33)	-(1.35)	-(0.12)	-(0.40)
r_{Gt-1}	-0.030	0.057^{++}	-0.090	0.113^{+}	-0.109^{++}	0.112^{+++}	0.074	-0.005	0.013	0.062^{+}	-0.101	0.101
	-(0.94)	(2.33)	-(0.95)	(1.82)	-(2.28)	(3.34)	(0.69)	-(0.07)	(0.27)	(1.76)	-(0.92)	(1.24)
r_{Gt-2}	-0.021	0.028	-0.035	0.124^{++}	0.016	-0.038	0.046	0.093	0.031	0.048	-0.111	0.132
	-(0.65)	(1.14)	-(0.37)	(1.98)	(0.33)	-(1.14)	(0.43)	(1.43)	(0.64)	(1.36)	-(1.01)	(1.62)
r_{Gt-3}	0.005	-0.018	0.048	0.025	0.039	-0.034	0.199^{+}	-0.085	-0.011	0.022	0.146	-0.154^{+}
	(0.16)	-(0.74)	(0.50)	(0.40)	(0.82)	-(1.02)	(1.86)	-(1.32)	-(0.23)	(0.62)	(1.33)	-(1.89)
r_{Gt-4}	0.069^{++}	-0.021	-0.109	0.046	0.070	-0.018	-0.081	0.045	-0.001	0.034	0.040	-0.016
	(2.11)	-(0.87)	-(1.15)	(0.74)	(1.46)	-(0.53)	-(0.76)	(0.70)	-(0.03)	(0.95)	(0.36)	-(0.20)
r_{Vt-1}	0.008	0.060^{++}	-0.016	0.034	0.104^{++}	-0.018	-0.142	0.120^{+}	0.018	-0.026	0.148	-0.059
	(0.26)	(2.44)	-(0.16)	(0.54)	(2.17)	-(0.54)	-(1.33)	(1.85)	(0.37)	-(0.73)	(1.35)	-(0.73)
r_{Vt-2}	0.025	0.023	0.119	-0.069	-0.054	0.107^{+++}	-0.035	-0.011	-0.056	0.025	0.042	-0.007
	(0.78)	(0.96)	(1.26)	-(1.11)	-(1.13)	(3.19)	-(0.32)	-(0.18)	-(1.15)	(0.72)	(0.38)	-(0.08)
r_{Vt-3}	0.008	0.051^{++}	0.067	-0.061	-0.044	0.055	-0.124	0.003	0.033	0.023	-0.095	0.198^{++}
	(0.25)	(2.10)	(0.70)	-(0.98)	-(0.91)	(1.64)	-(1.16)	(0.05)	(0.67)	(0.65)	-(0.86)	(2.43)
r_{Vt-4}	-0.032	0.024	0.117	-0.024	0.017	0.004	0.119	-0.005	-0.023	0.031	-0.007	0.071
	-(0.98)	(0.97)	(1.23)	-(0.39)	(0.36)	(0.12)	(1.11)	-(0.08)	-(0.48)	(0.87)	-(0.07)	(0.88)

Table IA.V – *Continued*

Panel B. Stocks that Switch from the Growth Index to the Value Index

	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991			
	All Switchers *n*=507		Index Balancers *n*=167		All Switchers *n*=198		Index Balancers *n*=37		All Switchers *n*=445		Index Balancers *n*=163	
	Δ	pre-event	Δ	pre-event	Δ	pre-event	Δ	pre-event	Δ	pre-event	Δ	pre-event
r_{Gt}	-0.062**	0.423^{+++}	-0.096**	0.348^{+++}	-0.093**	0.519^{+++}	-0.340***	0.406^{+++}	-0.036	0.435^{+++}	0.157+++	0.316^{+++}
	-(1.96)	(15.50)	-(2.10)	(10.14)	-(1.78)	(13.52)	-(3.78)	(9.59)	-(0.96)	(14.60)	(2.89)	(8.04)
r_{Vt}	0.040	0.622^{+++}	0.095**	0.630^{+++}	0.066	0.661^{+++}	0.461***	0.629^{+++}	0.037	0.537^{+++}	-0.092+	0.604^{+++}
	(1.20)	(22.94)	(1.88)	(17.22)	(1.24)	(15.84)	(4.95)	(11.87)	(0.84)	(16.22)	-(1.43)	(13.18)
ret_{t-1}	-0.018	-0.031	-0.001	-0.061^{++}	-0.024	-0.020	0.024	-0.078^{+}	-0.009	0.018	0.002	0.012
	-(0.54)	-(1.14)	-(0.02)	-(1.66)	-(0.44)	-(0.47)	(0.26)	-(1.48)	-(0.20)	(0.54)	(0.04)	(0.26)
ret_{t-2}	0.016	-0.059^{++}	0.017	-0.073^{++}	0.013	-0.046	0.047	-0.087^{++}	0.000	-0.053^{+}	0.008	-0.064^{+}
	(0.48)	-(2.16)	(0.33)	-(2.00)	(0.25)	-(1.11)	(0.50)	-(1.64)	(0.00)	-(1.59)	(0.12)	-(1.41)
ret_{t-3}	0.010	-0.017	-0.001	-0.018	-0.002	-0.008	-0.032	-0.001	-0.006	-0.031	-0.001	-0.034
	(0.30)	-(0.62)	-(0.03)	-(0.49)	-(0.03)	-(0.20)	-(0.35)	-(0.01)	-(0.14)	-(0.94)	-(0.02)	-(0.73)
ret_{t-4}	0.016	-0.041^{+}	0.024	-0.052^{+}	0.029	-0.047	0.058	-0.092^{++}	0.003	-0.038	0.001	-0.033
	(0.50)	-(1.51)	(0.47)	-(1.42)	(0.55)	-(1.12)	(0.62)	-(1.73)	(0.07)	-(1.15)	(0.01)	-(0.73)
r_{Gt-1}	0.031	0.022	0.010	0.049^{+}	0.050	-0.001	-0.006	0.041	-0.085	0.084^{+++}	-0.109^{+}	0.104^{++}
	(0.94)	(0.83)	(0.19)	(1.34)	(0.95)	-(0.02)	-(0.06)	(0.77)	-(1.93)	(2.54)	-(1.71)	(2.27)
r_{Gt-2}	0.050	0.015	0.061	-0.013	0.034	-0.035	0.124	-0.013	-0.056	0.053^{+}	-0.032	0.095^{++}
	(1.53)	(0.57)	(1.21)	-(0.36)	(0.64)	-(0.83)	(1.33)	-(0.24)	-(1.27)	(1.61)	-(0.50)	(2.08)
r_{Gt-3}	0.001	0.036^{+}	-0.006	0.026	-0.084	0.095^{++}	-0.093	0.033	-0.017	0.019	0.029	0.000
	(0.02)	(1.34)	-(0.12)	(0.71)	-(1.58)	(2.29)	-(1.00)	(0.63)	-(0.39)	(0.56)	(0.46)	(0.00)
r_{Gt-4}	-0.014	0.005	0.005	-0.012	0.012	-0.040	-0.002	-0.026	-0.060	0.053^{+}	-0.102	0.079^{++}
	-(0.42)	(0.19)	(0.10)	-(0.32)	(0.22)	-(0.95)	-(0.02)	-(0.49)	-(1.37)	(1.61)	-(1.59)	(1.71)
r_{Vt-1}	-0.061^{+}	0.098^{+++}	-0.077	0.092^{+++}	-0.063	0.110^{+++}	0.008	0.073^{+}	0.124	-0.065^{++}	0.136^{++}	-0.082^{++}
	-(1.86)	(3.63)	-(1.52)	(2.52)	-(1.18)	(2.63)	(0.08)	(1.38)	(2.85)	-(1.96)	(2.13)	-(1.79)
r_{Vt-2}	-0.039	0.049^{++}	-0.051	0.075^{++}	-0.030	0.070^{++}	-0.058	0.039	0.048	0.033	0.024	-0.027
	-(1.19)	(1.81)	-(1.00)	(2.05)	-(0.56)	(1.67)	-(0.62)	(0.74)	(1.10)	(0.99)	(0.38)	-(0.58)
r_{Vt-3}	0.001	0.025	0.016	0.017	0.086	-0.073^{++}	0.125	-0.053	0.034	0.049^{+}	-0.033	0.063^{+}
	(0.04)	(0.92)	(0.31)	(0.46)	(1.61)	-(1.76)	(1.34)	-(1.01)	(0.77)	(1.49)	-(0.51)	(1.38)
r_{Vt-4}	-0.004	0.080^{+++}	-0.038	0.089^{+++}	-0.087	0.176^{+++}	-0.025	0.133^{+++}	0.057	0.026	0.053	-0.002
	-(0.12)	(2.95)	-(0.74)	(2.43)	-(1.63)	(4.22)	-(0.27)	(2.52)	(1.30)	(0.77)	(0.83)	-(0.04)

Table IA.VI
Robustness Check for Table II: Univariate Measures of Comovement

Daily log stock returns (r_{it}) are regressed on the log index returns (r_{Gt} and r_{Vt}), in the following manner:

$$r_{it} = \beta_{i0} + \beta_{iG} r_{Gt} + e_{it}$$
$$r_{it} = \beta_{i0} + \beta_{iV} r_{Vt} + e_{it} .$$

I also estimate correlations between stocks returns and index returns. The parameters are estimated separately over a "pre-event window" and a "post-event window" for each stock that switches among the S&P/Barra indices where the event-month is the month in which the stock switches indices, either June or December for some year. The pre- and post-event windows are the five-month intervals before and after each event month. I exclude stocks switching indices when calculating index returns to avoid measuring effects associated with changes in index composition. For each stock, I calculate the change in each parameter as the post-event estimate minus the pre-event estimate. Columns labeled "Δ" report the average change in parameter estimates across stocks that switch to either the Growth or Value index. Columns labeled "PE" report average parameter estimates over pre-event windows. Rows labeled $\overline{\beta}_k$ ($\overline{\rho}_k$) present results for regression slopes (correlations) for index *k*. Bootstrap *p*-values, which take into account overlapping estimation windows, are in parentheses. Index-balancers are stocks that switch to the Growth index with a negative return over the pre-event window or stocks that switch to the Value index with a positive return over the pre-event window. Difference-in-difference statistics on the far right of the table compare estimates of the average change in regression parameters across the test and control samples (Test-Control) and across the high turnover and control samples (HT-Control). Columns labeled "All" report difference-in-difference statistics for all stocks that switch, while columns labeled "IB" report difference-in-difference results for index-balancers. The number of stocks switching for each sample is indicated by *n*. To be included in the analysis, a stock must remain in the same S&P/Barra index throughout the entire pre-event window and in the same S&P/Barra index throughout the entire post-event window. I exclude stocks with prices less than $5 in either window. Results for the control sample exclude the crash of October 1987. Significance of the one-tailed tests described in the paper at the 1%, 5%, and 10% levels is indicated respectively by ***, **, and *.

Panel A. Stocks that Switch from the Value Index to the Growth Index

	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991							
	All Switchers *n*=390		Index-Balancers *n*=36		All Switchers *n*=152		Index-Balancers *n*=24		All Switchers *n*=385		Index-Balancers *n*=54		Difference-in-Difference Statistics			
													Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\overline{\beta}_G$	0.101	0.736	0.167	0.665	0.182	0.667	0.099	0.652	0.019	0.840	0.005	0.782	0.082	0.162	0.164	0.094
Block *p*	(0.00)***		(0.00)***		(0.00)***		(0.068)*		(0.16)		(0.44)		(0.00)***	(0.01)***	(0.00)***	(0.12)
$\overline{\rho}_G$	0.044	0.358	0.056	0.361	0.082	0.364	0.047	0.396	0.012	0.440	0.031	0.410	0.031	0.024	0.070	0.015
Block *p*	(0.00)***		(0.03)**		(0.00)***		0.103		(0.18)		(0.07)*		(0.012)**	(0.21)	(0.00)***	(0.35)

Table IA.VI – *Continued*

Panel B. Stocks that Switch from the Growth Index to the Value Index																
	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991							
	All Switchers		Index-Balancers		All Switchers		Index-Balancers		All Switchers		Index-Balancers		Difference-in-Difference Statistics			
	n=507		*n*=167		*n*=198		*n*=37		*n*=445		*n*=163		Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\overline{\beta}_V$	-0.002	1.031	0.012	0.975	0.023	1.170	0.146	1.022	-0.015	1.043	0.074	0.974	0.012	-0.062	0.038	0.073
Block *p*	(0.55)		(0.32)		(0.29)		(0.01)***		(0.81)		(0.00)***		(0.32)	(0.95)	(0.20)	(0.13)
$\overline{\rho}_V$	0.015	0.390	0.013	0.415	0.016	0.438	0.005	0.477	-0.004	0.445	0.017	0.448	0.019	-0.004	0.020	-0.011
Block *p*	(0.01)***		(0.08)*		(0.11)		(0.33)		(0.75)		(0.06)*		(0.02)**	(0.57)	(0.08)*	(0.62)

Table IA.VII
Robustness Check for Table III: Weekly Data

This table replicates the analysis of Table III using weekly turnover data. Weekly turnover (τ_{it}) of stocks that switch between the S&P/Barra Growth and Value indices is regressed on the turnover of the two indices (τ_{Gt} and τ_{Vt}),

$$\tau_{it} = \gamma_{i0} + \gamma_{iG}\tau_{Gt} + \gamma_{iV}\tau_{Vt} + e_{it} .$$

The regression is estimated separately over a "pre-event window" and a "post-event window" for each stock where the event-month is the month in which the stock switches indices, either June or December for some year. The pre- and post-event windows are the eleven-month intervals before and after each event month. I define weekly turnover as the sum of daily turnover from Wednesday close to Wednesday close and index turnover as the equally weighted average. I exclude stocks switching indices when calculating index turnover to avoid measuring effects associated with changes in index composition. For each stock, I calculate the change in each regression parameter as the post-event estimate minus the pre-event estimate. Columns labeled "Δ" report the average change in parameter estimates across stocks that switch to either the Growth or Value index. Columns labeled "PE" report average parameter estimates for pre-event windows. Robust *t*-statistics and block bootstrap *p*-values, both of which take into account overlapping estimation windows, are in parentheses. Difference-in-difference statistics on the far right of the table compare estimates of the average change in regression parameters around events months across the test and control samples (Test-Control) and across the high turnover and control samples (HT-Control). Columns labeled "All" report difference-in-difference statistics for all stocks that switch, while columns labeled "IB" report difference-in-difference results for index-balancers. Robust *t*-statistics and bootstrap *p*-values, both of which take into account overlapping estimation windows, are in parentheses. Index-balancers are stocks that switch to the Growth index with a negative return over the five-month pre-event window or stocks that switch to the Value index with a positive return over this same window. The number of stocks switching for each sample is indicated by *n*. To be included in the analysis, a stock must remain in the same S&P/Barra index throughout the entire pre-event window and in the same S&P/Barra index throughout the entire post-event window. I exclude stocks with prices less than $5 in either window. Results for the control sample exclude the crash of October 1987. Significance of the one-tailed tests described in the paper at the 1%, 5%, and 10% levels is indicated respectively by ***, **, and *.

Panel A. Stocks that Switch from the Value Index to the Growth Index

	Control Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991							
	All Switchers *n*=161		Index-Balancers *n*=18		All Switchers *n*=67		Index-Balancers *n*=11		All Switchers *n*=113		Index-Balancers *n*=9		Difference-in-Difference Statistics			
													Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\bar{\gamma}_G$	0.109	0.380	0.210	-0.263	-0.005	0.151	0.240	-0.155	0.197	0.458	-1.028	1.376	-0.088	1.238	-0.201	1.267
t-stat	(1.05)		(1.01)		-(0.04)		(1.69)**		(0.89)		-(1.06)		-(0.36)	(1.25)	-(0.81)	(1.30)*
$\bar{\gamma}_V$	-0.205	0.806	-0.166	1.183	0.012	0.838	-0.333	0.997	-0.132	0.885	0.719	0.343	-0.073	-0.885	0.144	-1.052
t-stat	-(1.56)*		-(0.59)		(0.07)		-(1.36)*		-(0.61)		(0.65)		-(0.29)	-(0.78)	(0.52)	-(0.93)

Table IA.VII – *Continued*

Panel B. Stocks that Switch from the Growth Index to the Value Index																
	Control Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991							
	All Switchers		Index-Balancers		All Switchers		Index-Balancers		All Switchers		Index-Balancers		Difference-in-Difference Statistics			
	n=234		*n*=67		*n*=82		*n*=11		*n*=132		*n*=42		Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\overline{\gamma}_G$	-0.417	0.755	-0.219	0.422	-0.410	0.764	-0.004	0.181	-0.176	0.632	-0.240	0.419	-0.241	0.021	-0.233	0.236
t-stat	-(3.81)***		-(1.60)*		-(3.05)***		-(0.04)		-(1.60)*		-(1.42)*		-(1.55)*	(0.10)	-(1.34)*	(1.21)
$\overline{\gamma}_V$	0.328	0.417	0.120	0.571	0.179	0.514	-0.098	0.525	0.055	0.506	0.130	0.501	0.273	-0.010	0.124	-0.228
t-stat	(2.41)***		(0.69)		(0.88)		-(0.51)		(0.43)		(0.71)		(1.46)*	-(0.04)	(0.52)	-(0.87)

Table IA.VIII
Weighted Turnover Results

This table reports *weighted* average changes in regression coefficients, in regressions of turnover of stocks that switch among the S&P/Barra indices on turnover of the S&P/Barra indices. Daily turnover (τ_{it}) of stocks that switch between the S&P/Barra Growth and Value indices are regressed on the turnover of the two indices (τ_{Gt} and τ_{Vt}),

$$r_{it} = \gamma_{0i} + \gamma_{iG}\tau_{Gt} + \gamma_{iV}\tau_{Vt} + e_{it} .$$

The regression is estimated separately over a "pre-event window" and a "post-event window" for each stock where the event-month is the month in which the stock switches indices, either June or December for some year. The pre- and post-event windows are the five-month intervals before and after each event month. I define daily turnover as volume on day *t* divided by shares outstanding on day *t-1* adjusted for splits and index turnover as the equally weighted average. For each event month *k*, I calculate the average change in γ_{iG} and γ_{iV} across stocks that switch to a given index, where I measure the change as the post-event estimate minus the pre-event estimate. Columns labeled "Δ" report the *weighted* average change in parameter estimates across stocks that switch to either the Growth or Value index. In Panel A, which reports results for stocks switching to the Growth index, the weight for event month *k* is the fraction of stocks that switch to the *Value* index in event month *k*, of all stocks switching to the Value index during the sample. In Panel B, which reports results for stocks switching to the Value index, the weight for every stock in event month *k* is the fraction of stocks that switch to the *Growth* index in event month *k*, of all stocks switching to the Growth index in the sample. Columns labeled "pre-event" report average parameter estimates over pre-event windows. Robust *t*-statistics, which take into account overlapping estimation windows, are in parentheses. Difference-in-difference statistics on the far right of the table compare estimates of the average change in regression parameters across the test and control samples (Test-Control) and across the high turnover and control samples (HT-Control). Columns labeled "All" report difference-in-difference statistics for all stocks that switch, while columns labeled "IB" report difference-in-difference results for index-balancers. Index-balancers are stocks that switch to the Growth index with a negative return over the pre-event window or stocks that switch to the Value index with a positive return over the pre-event window. The number of stocks switching for each sample is indicated by *n*. Significance of the one-tailed tests described in the paper at the 1%, 5%, and 10% levels is indicated respectively by ***, **, and *.

Panel A. Stocks that Switch from the Value Index to the Growth Index

	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991							
	All Switchers *n*=390		Index-Balancers *n*=36		All Switchers *n*=152		Index-Balancers *n*=24		All Switchers *n*=385		Index-Balancers *n*=54		Difference-in-Difference Statistics			
													Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\bar{\gamma}_G$	0.275	0.344	0.092	0.061	0.783	0.151	0.099	0.206	-0.024	0.514	-0.065	0.280	0.299	0.157	0.807	0.164
t-stat	(2.99)***		(0.76)		(4.03)***		(0.73)		-(0.34)		-(0.40)		(2.57)***	(0.77)	(3.91)***	(0.78)
$\bar{\gamma}_V$	-0.160	0.775	0.026	0.258	-0.544	1.027	0.068	0.292	-0.007	0.473	0.45	0.203	-0.153	-0.423	-0.537	-0.382
t-stat	-(1.13)		(0.15)		-(1.70)**		(0.36)		-(0.08)		(2.04)		-(0.93)	-(1.50)*	-(1.63)*	-(1.32)*

Table IA.VIII – *Continued*

Panel B. Stocks that Switch from the Growth Index to the Value Index

	Test Sample 1992-2004				High Turnover Sample 1998-2002				Control Sample 1981-1991							
	All Switchers *n*=507		Index-Balancers *n*=167		All Switchers *n*=198		Index-Balancers *n*=37		All Switchers *n*=445		Index-Balancers *n*=163		Difference-in-Difference Statistics			
													Test-Control		HT-Control	
	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	Δ	PE	All	IB	All	IB
$\bar{\gamma}_G$	-0.166	0.591	-0.427	0.446	-0.060	0.725	-0.415	0.405	-0.021	0.437	0.079	0.268	-0.145	-0.505	-0.039	-0.493
t-stat	-(1.75)**		-(2.57)***		-(0.30)		-(1.93)**		-(0.24)		(0.64)		-(1.13)	-(2.44)***	-(0.18)	-(2.00)**
$\bar{\gamma}_V$	-0.045	0.747	0.508	0.282	-0.438	1.026	0.431	0.402	0.112	0.392	-0.078	0.376	-0.157	0.587	-0.551	0.509
t-stat	-(0.31)		(1.77)**		-(1.29)		(1.12)		(1.03)		-(0.54)		-(0.86)	(1.82)**	-(1.54) *	(1.24)