Panel A- Market equity portfolios (In sample size quintiles)									
	Q1	Q2	Q3	Q4	Q5	All Firms	Q5-Q1		
	Low ME				High ME		Diff.		
ME	274	1014	2392	5837	20491	6984	20216***		
V/P	2.243	1.285	1.081	0.992	0.904	1.476	-1.339***		
B/M	1.670	1.110	0.859	0.692	0.470	1.104	-1.201***		
beta	1.262	1.291	1.209	1.164	1.003	1.186	-0.259***		
Ret12	0.187	0.140	0.151	0.130	0.109	0.152	-0.078***		
Ret24	0.411	0.329	0.324	0.298	0.247	0.340	-0.168***		
Ret36	0.585	0.426	0.366	0.388	0.304	0.447	-0.286***		
SRet12	0.069	0.027	0.028	0.005	0.005	0.035	-0.063***		
SRet24	0.124	0.062	0.043	0.019	0.017	0.067	-0.106***		
SRet36	0.179	0.097	0.028	0.037	0.027	0.094	-0.151***		
Obs.	3325	3314	3315	3296	3330	16,580			
Panel B- Boo	ok to Market (l	B/M) portfolic)S						
	Q1	Q2	Q3	Q4	Q5	All Firms	Q5-Q1		
	Low B/M				High B/M		Diff.		
B/M	0.155	0.320	0.478	0.702	2.496	1.104	2.340***		
V/P	0.890	1.097	1.343	1.678	2.370	1.476	1.480***		
ME	10846	7784	6062	5546	4686	6984	-6160***		
beta	1.219	1.168	1.154	1.117	1.241	1.186	0.022		
Ret12	0.136	0.141	0.153	0.152	0.177	0.152	0.041**		
Ret24	0.300	0.314	0.340	0.334	0.411	0.340	0.111*		
Ret36	0.386	0.405	0.450	0.453	0.542	0.447	0.156**		
SRet12	0.024	0.027	0.037	0.033	0.054	0.035	0.030**		
SRet24	0.042	0.048	0.069	0.058	0.118	0.067	0.076*		
SRet36	0.058	0.066	0.083	0.101	0.165	0.094	0.106*		
Obs.	3325	3314	3315	3296	3330	16,580			
Panel C- Val	lue-to-Price (V	/P) portfolios							
	Q1	Q2	Q3	Q4	Q5	All Firms	Q5-Q1		
	Low V/P				High V/P		Diff.		
V/P	0.580	0.876	1.142	1.531	3.184	1.476	2.604***		
B/M	0.538	0.647	0.858	1.368	1.800	1.104	1.261***		
ME	12400	7747	5033	3086	944	6984	-11455**		
beta	1.10	1.04	1.03	1.13	1.28	1.186	0.18		
Ret12	0.148	0.149	0.137	0.176	0.201	0.152	0.053*		
Ret24	0.330	0.307	0.325	0.365	0.467	0.340	0.137**		
Ret36	0.413	0.382	0.383	0.449	0.691	0.447	0.278**		
SRet12	0.028	0.024	0.014	0.048	0.060	0.035	0.032*		
SRet24	0.050	0.035	0.042	0.070	0.138	0.067	0.088*		
SRet36	0.077	0.043	0.046	0.083	0.223	0.094	0.145*		
Obs.	3325	3314	3315	3296	3330	16,580			

Table 1 Characteristics of quantile-portfolio formed by ME, B/P and V/P ratios

All the NYSE, AMEX, NASDAQE stocks in the sample, were sorted into five quintile portfolios based on ME, B/M, or V/P at the end of June each year. ME is the market value of equity at the end of June of year t. V/P is the fundamental value of year t - 1, measured using the previous five years' data, divided by the stock price at the end of June of year t. B/M is the book value of equity at the end of December of year t - 1 divided by the market value of equity at the end of June of year t. B/M is the book value of equity at the end of December of year t - 1 divided by the market value of equity at the end of June of year t. The stocks in Q1 (Q5) were the stocks with the lowest (highest) ME, B/M, or V/P. Each panel of the table reports the characteristics of the quintile portfolios. Beta is estimated using the next 36 months of returns data. Ret12, Ret24 and Ret36 are the average buy-and-hold returns over 12, 24 and 36 months, respectively, at the beginning of July of year t. Sret12, Sret24, and Sret36 are size-adjusted returns over 12, 24 and 36 months, respectively, beginning from the July of year t. The size-adjusted returns were calculated as the difference between the raw returns and the corresponding size index returns where the cut-off point of the size deciles was based on all AMEX and NYSE stocks. Obs. denotes the number of observations in each quintile portfolio and it applies to all variables except returns. Q5-Q1 diff. represents the differences between the top portfolio and bottom portfolio. The statistical significance of the difference is based on t-statistics derived from the annual mean and the standard error of the variables. The procedures of Newey and West (1987) were followed to adjust for the serial correlation for Ret24, Ret36, Sret24, Sret36 due to overlapping holding periods. *, ** and *** denote statistical significance at 10%, 5% and 1%, respectively (two-sided tests).

	V/P	Analysts	Ln(ME)	D/M	Beta	volatility	Std. ROA	Z Score	B/M
V/P	-	-0.275***	-0.478***	0.161***	0.118***	0.437***	0.112***	-0.017	0.148***
Analysts	-0.391***	-	0.721***	-0.125***	-0.053***	-0.270***	-0.075***	-0.157***	-0.159***
Ln(ME)	-0.553***	0.754***	-	-0.139***	-0.103***	-0.491***	-0.115***	-0.173***	-0.165***
D/M	0.196***	0.039***	0.086***	-	0.034***	0.035***	-0.038***	-0.146***	0.791***
Beta	0.116***	-0.032***	-0.092***	-0.059***	-	0.2912***	0.136***	0.015*	0.021***
Volatility	0.361***	-0.327***	-0.538***	-0.178***	0.290***	-	0.148***	0.101***	-0.006
Std. ROA	0.154***	-0.135***	-0.222***	-0.223***	0.286***	0.369***	-	0.011***	-0.035***
Z Score	-0.039	-0.176***	-0.201***	-0.341***	0.027***	0.130***	0.079***	-	-0.103***
B/M	0 577***	-0 237***	-0 303***	0 431***	0.025***	0.037***	-0 069***	-0 218***	_

Table 2 Pearson and Spearman correlation matrix among V/P and various risk indicators

The table reports the Pearson (Spearman) correlation matrix over (under) the diagonal. V/P is the fundamental value of year t - 1, measured using the previous five years' data, divided by the stock price at the end of June in year t. Analysts is the number of financial analysts following the share, which is included in I/B/E/S files in the month following the annual earnings announcements. Ln(ME) is the logarithm of the market value of equity at the end of June in year t. D/M is the ratio of the long-term debt at the end of December of year t-1 to the market value of equity as measured at the end of June in year t. Beta is measured using the capital asset pricing model (CAPM) using monthly data over the maximum of 36 previous months ending in the December of year t-1. Volatility is calculated as the standard deviation of the residual from the CAPM model using daily returns data that end on the last trading day of year t-1. Std. ROA is the standard deviation of return over assets over the previous five years ending in the December of year t-1. Z score is an Altman's Z score (1968) calculated as ALtman's Z = 0/012*(working capital/Total assets) + 0.014*(retained earnings/Total assets) + 0.033*(earnings before interest and tax/Total assets) + 0.006*(Market value of equity/Book value of Total liabilities) + 0.999*(Sales/Total assets). B/M is calculated as the book value of equity of year t-1 divided by the market value of equity at the end of June in year t. *, ** and *** denote statistical significance at 10%, 5% and 1%, respectively (two-sided tests).

$V/P = \beta_0 + \beta_1 Beta + \beta_2 Ivolatility + \beta_3 D/M + \beta_4 Ln(ME) + \beta_5 Analysts + \beta_6 Altman's Z + \beta_7 Std(ROA) + \beta_8 B/M + \varepsilon$									
		Equation 3							
	Moc	lel I	Mode	Model II					
	β	t-statistics	β	t-statistics					
Intercept	3.312	40.60 ***	2.55	26.58***					
Beta	0.144	8.72***	-0.046	-6.92***					
Ivolatility			3.99	17.32***					
D/M			0.041	2.30**					
Ln(ME)	-0.329	-49.03***	-0.28	-29.55***					
Analysts			0.018	11.23***					
Altman's Z			-0.167	-9.95***					
Std(ROA)			1.33	6.92***					
B/M	0.027	6.51***	0.018	2.18**					
Industry dummy	Yes		Yes						
Year dummy	Yes		Yes						
Adj. R ²	26.5%		33.17%						
Obs.	16548		16548						
Years	1993-2014		1992-2014						

Table 3 Regression of V/P on various risk factors

Adj. \mathbb{R}^2 26.5%33.17%Obs.1654816548Years1993-20141992-2014The table reports the pooled regression of Equation 3 with year and industry fixed effect. The industry
classification is based on Fama and French (1997), as reported in Table 1. V/P is the fundamental value of year
t-1 divided by the stock price at the end of June in year t. Analysts is the number of financial analysts
following the share. Ln(ME) is the logarithm of the market value of equity at the end of June in year t. D/M is
the ratio of the long-term debt at the end of December in year t-1 to the market value of equity as measured at
the end of June in year t. Beta is measured using the capital asset pricing model (CAPM) using monthly data
over the maximum of 36 previous months ending at the December of year t-1. Volatility is calculated as the
standard deviation of the residual from the CAPM model using daily returns data ending on the last trading day
of year-1. Std(ROA) is the standard deviation of return over assets over the previous five years ending in the
December of year t-1. Z score is an Altman's Z score (1968). B/M is calculated as the book value of equity of
year t-1 divided by the market value of equity at the end of June of year t. Adj. \mathbb{R}^2 is the adjusted R-square. *, **
and *** denote statistical significance at 10%, 5% and 1%, respectively (two-sided tests)

	V/.	P only	Μ	odel I	Model II		
	β	t-statistics	β	t-statistics	β	t-statistics	
Intercept	0.522	9.24***	0.852	12.62***	0.647	7.94***	
V/P	0.054	10.23***	0.031	4.67***	0.013	1.9**	
Beta			0.009	0.93	-0.030	-2.58***	
Ivolatility					1.431	7.49***	
D/M					0.036	4.79***	
Ln(ME)			-0.428	-9.35***	-0.037	-5.06***	
Analysts					0.003	2.51**	
Altman's Z					0.045	3.54***	
Std(ROA)					-0.163	-1.29	
B/M			-0.003	-1.23	-0.014	-3.25***	
Ind. dummy	Yes		Yes		Yes		
Year dummy	Yes		Yes		Yes		
Adj. R ²	21.88%		22.50%		23.39%		
Obs.	12733		12707		11693		

Table 4 Regression of future returns on V/P and various risk factors

$$\begin{split} \text{Ret36} &= \beta_0 + \beta_1 V/P + \beta_2 Beta + \beta_3 Ivolatility + \beta_4 D/M + \beta_5 Ln(ME) + \beta_6 Analysts \\ &+ \beta_7 Altman's \, Z + \beta_8 Std(ROA) + \beta_9 B/M + \varepsilon \\ \text{Equation 4} \end{split}$$

The table reports the pooled regression of Equation 3 with year and industry fixed effect. The industry classification is based on Fama and French (1997), as reported in Table 1. V/P is the fundamental value of year t - 1 divided by the stock price at the end of June in year t. Analysts is the number of financial analysts following the share. Ln(ME) is the logarithm of the market value of equity at the end of June in year t. D/M is the ratio of the long-term debt at the end of December in year t-1 to the market value of equity as measured at the end of June in year t. Beta is measured using the capital asset pricing model (CAPM) using monthly data over the maximum of 36 previous months ending at the December of year t-1. Volatility is calculated as the standard deviation of the residual from the CAPM model using daily returns data ending on the last trading day of year-1. Std(ROA) is the standard deviation of return over assets over the previous five years ending in the December of year t-1. Z score is an Altman's Z score (1968). B/M is calculated as the book value of equity of year t-1 divided by the market value of equity at the end of June of year t. Adj. R2 is the adjusted R-square. *, ** and *** denote statistical significance at 10%, 5% and 1%, respectively (two-sided tests)

		Fir) st vear retu	$R_{it} - R_{ft}$) = rns	$= \alpha_i + \beta_i (R_m)$	$R_{mt} - R_{ft} + \varepsilon_t$ (1) Overlapping returns						
	01	02	03	04	05	01	02	03	04	05		
	0.001	0.001	0.001	0.001	0.004*	0.002*	0.002	0.001	0.002	0.006***		
α	(1.14)	(1.16)	(0.66)	(1.01)	(1.88)	(1.89)	(1.62)	(1.33)	(1.51)	(2.81)		
	1.094***	1.095***	1.007***	1.126***	1.269***	1.093***	1.050***	0.968***	1.083***	1.174***		
β	(39.37)	(34.49)	(26.60)	(25.91)	(21.31)	(42.81)	(35.00)	(28.97)	(27.13)	(22.93)		
Adj.R ²	0.851	0.812	0.719	0.709	0.622	0.869	0.816	0.753	0.727	0.656		
		GR	S F-value: 4	1.55		li se	GRS F-value: 11.450*					
Panel B	: Three-fact	tor model										
		Fir	$(R_{it} - R_{ft})$	$= \alpha_i + \beta_i (R)$	$_{mt}-R_{ft})+$	$s_i SMB_t + h_i H$	$ML_t + \varepsilon_t$	(2) rlanning ref	turne			
	01				05	01				05		
	0.001	0.000	Q3	0.000	0.003	0.001*	Q^{2}	Q3	0.000	Q5 0.004***		
α	(1.24)	(0.54)	(0.32)	(0.15)	(1.53)	(1.81)	(0.98)	(0.45)	(0.75)	(2.78)		
	1 050***	1 088***	1 015***	1 097***	1 200***	1 057***	1 048***	0.969***	1 063***	1 116***		
β	(40.39)	(38 32)	(33.03)	(33.85)	(25 35)	(44.85)	(40.85)	(38,68)	(38 36)	(29.15)		
	0.244***	0.277***	0.327***	0.578***	0.831***	0.270***	0.272***	0.355***	0.537***	0.757***		
S	(6.76)	(7.03)	(7.68)	(12.86)	(12.65)	(8.27)	(7.64)	(10.22)	(13.96)	(14.25)		
1	-0.078**	0.292***	0.494***	0.489***	0.446***	0.027	0.329***	0.462***	0.518***	0.449***		
n	(2.12)	(7.22)	(11.29)	(10.60)	(6.62)	(0.81)	(9.00)	(12.95)	(13.13)	(8.24)		
Adj.R ²	0.875	0.858	0.825	0.847	0.774	0.894	0.873	0.869	0.876	0.818		
		GR	S F-value: 5	5.49			GRS	F-value: 13	3.23*			
Panel C	: Five-facto	r model										
	(R_{it})	$-R_{ft}) = \alpha_i$	$+\beta_i(R_{mt} -$	R_{ft}) + $s_i Sl$	$MB_t + h_i HM$	$L_t + r_i RMW_t$	$+ c_i CMA_t +$	ε _t	(3)			
		Fir	st year retu	rns			Ove	rlapping ret	urns			
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5		
	0.001	0.000	-0.002**	-0.001	0.003	0.001	0.000	-0.001	0.000	0.004**		
α	(0.96)	(0.64)	(-2.03)	(-1.06)	(1.41)	(1.54)	(0.48)	(-1.63)	(0.49)	(2.34)		
p	1.062***	1.159***	1.123***	1.181***	1.205***	1.067***	1.126***	1.074***	1.135***	1.141***		
ρ	(33.88)	(34.70)	(32.06)	(31.03)	(21.12)	(37.56)	(37.98)	(38.76)	(34.92)	(24.77)		
c	0.249***	0.331***	0.425***	0.633***	0.810***	0.267***	0.348***	0.458***	0.600***	0.761***		
3	(6.13)	(7.62)	(9.33)	(12.80)	(10.92)	(7.23)	(9.02)	(12.71)	(14.21)	(12.69)		
h	-0.106**	0.152***	0.295***	0.315***	0.410***	-0.002	0.191***	0.277***	0.386***	0.381***		
10	(-2.01)	(2.70)	(4.97)	(4.90)	(4.25)	(-0.06)	(3.82)	(5.91)	(7.02)	(4.89)		
r	0.0261	0.196***	0.336***	0.212***	-0.043	0.002	0.254***	0.344***	0.219***	0.035		
	(0.46)	(3.25)	(5.30)	(3.09)	(-0.42)	(0.04)	(4.75)	(6.87)	(3.73)	(0.43)		
С	0.046	0.185***	0.223***	0.252***	0.113	0.068	0.13/**	0.184**	0.151**	0.131		
	(0.63)	(2.37)	(2.72)	(2.83)	(0.85)	(1.02)	(1.98)	(2.84)	(1.99)	(1.22)		
Adj.R ²	0.874	0.864	0.843	0.854	0.773	0.894	0.883	0.889	0.882	0.818		
		GRS	F-value: 16	.88**			GRS	F-value: 29	.51**			
The tabl	e reports the	e regression	results of the	CAPM and	Fama and F	rench's three-	and five-fact	tor models b	y regressing	the excess		
monthly	returns of t	he V/P quint	tile portfolio	s against the	market exce	ess returns and	combination	is of SMB, I	HML, CMA	and RMW		
factors.	The perform	nance of dif	ferent model	s was comp	ared by calc	ulating the GR	S F-statistic	s. The signi	ificant GRS	F-statistics		
indicate	that the con	ibined interc	epts are not	equal to zero	All the NY	SE, AMEX, N	ASDAQE st	ocks in the s	ample, were	sorted into		
five qui	ntile portfoli	los based on	V/P at the e	nd of June e	ach year. V/I	P is the fundam	iental value	at the end of	December of	of year t-1,		
measure	d using the	previous five	e years' data	, divided by	the stock pri	ice at the end o	f June of ye	ar t . QI con	isists of stoc	ks with the		
lowest V	//P ratio and	Q5 consists	s of stocks w	ith the highe	st V/P ratio.	R_{it} are the mo	nthly returns	s of the quin	tile portfolio	$i. R_{mt}$ are		
the mon	thly returns of	of the marke	t index. R_{ft} c	lenotes the n	nonthly riskle	ess rate on treas	ury bills. SN	1B is the size	e factor and 1	s measured		
as the re	eturns on sm	all stocks m	inus the retu	rns on the la	irge stocks. I	HML is the boo	ok to market	ratio factor	and 1s meas	ured as the		
returns c	returns on shares with a high B/M ratio minus the return on stocks with a low B/M ratio. RMW is the profitability factor and is measured											
as the re	as the return on the robust stocks (top 30% of shares with the highest operating income) minus the return on the weak stocks (bottom 200 , of shares with the ameliast operating income). CMA is the investment factor whose returns make up the difference between the											
30% of	shares with	the smallest	operating inc	come). CMA	is the invest	ment factor wh	iose returns	make up the	difference b	etween the		
conserva	ative stocks	(top 30% of	firms with th	e smallest c	hanges in tot	al assets) and the	ne returns on	the most ag	gressive stor	cks (lowest		
30% of f	tirms with th	e greatest ch	ange in total	assets). The	monthly data	a for R_{mt} , R_{ft} ,	SMB, HML	, RMW and (CMA were d	ownloaded		
from Ke	n French's v	website of da	ita for 276 m	onths over the	ne period fro	m 1993 to 2015	5. *, ** and '	*** denote s	ignificant lev	vel at 10%,		
5% and	1%, respecti	vely (for two	o-sided tests)	Overlappin	g returns, in a	any given mont	h t, 1s calcula	ated by holdi	ng a series o	t portfolios		
that are	selected in th	he current ye	ar as well as	in the previo	ous year (t-1)	and the year be	etore that (t-	2). Specifica	Illy, overlapp	ng returns		
tor each	quantile por	rttolio (Q1- ((25) consists	of $1/3$ of the	first year ret	urns for each q	uantile portf	olio formed	ın year t, and	$1 \frac{1}{3}$ of the		
second y	year returns t	tor each qua	ntile portfoli	o tormed in	year t-1 and	1/3 of the third	year returns	tor each qua	antile portfol	los tormed		

in year t-2.

 Table 5. One-factor, three-factor and five-factor models' regression for quintile portfolios formed on (V/P)

 Panel A: One factor model

	$(R_{it} - R_{ft}) = \alpha_i + \beta_i (R_{mt} - R_{ft}) + \varepsilon_t (1)$										
		Seco	ond year ret	urns			Third year returns				
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5	
α	0.001	0.001	0.002*	0.003*	0.006***	0.003**	0.002	0.002	0.003*	0.007***	
	(1.51)	(1.39)	(1.78)	(1.71)	(2.76)	(2.21)	(1.45)	(1.47)	(1.72)	(3.31)	
β	1.109***	1.033***	0.962***	1.090***	1.138***	1.078***	1.022***	0.931***	1.046***	1.128***	
	(37.55)	(32.07)	(26.50)	(25.80)	(20.58)	(33.35)	(29.41)	(26.97)	(23.90)	(21.30)	
Adj.R ²	0.842	0.796	0.727	0.716	0.616	0.815	0.774	0.743	0.694	0.643	
		GRS	SF-value: 8	3.844			GRS	F-value: 14	.78**		
Panel E	B: Three-fac	tor model									
			$(R_{it}-R_{ft})$	$= \alpha_i + \beta_i (I$	$R_{mt} - R_{ft}) +$	$s_i SMB_t + h_i H$	$HML_t + \varepsilon_t$	(2)			
	-	Seco	ond year ret	urns			Thi	rd year retu	ırns		
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5	
~	0.001	0.000	0.001	0.001	0.005***	0.002**	0.001	0.000	0.001	0.006***	
u	(1.38)	(0.81)	(1.25)	(1.20)	(2.80)	(1.99)	(0.81)	(0.70)	(1.04)	(3.27)	
P	1.076***	1.034***	0.956***	1.070***	1.079***	1.045***	1.022***	0.930***	1.036***	1.078***	
р	(38.23)	(36.76)	(34.56)	(35.01)	(25.78)	(34.67)	(33.75)	(35.41)	(32.46)	(25.20)	
	0.262***	0.257***	0.394***	0.537***	0.783***	0.307***	0.274***	0.345***	0.491***	0.661***	
S	(6.73)	(6.60)	(10.28)	(12.69)	(13.51)	(7.37)	(6.53)	(9.49)	(11.12)	(11.15)	
1	0.046	0.339***	0.459***	0.513***	0.476***	0.114***	0.360***	0.446***	0.563***	0.430***	
п	(1.15)	(8.50)	(11.70)	(11.84)	(8.02)	(2.67)	(8.40)	(11.99)	(12.46)	(7.10)	
Adj.R ²	0.865	0.853	0.850	0.860	0.792	0.849	0.839	0.860	0.847	0.781	
		GRS	5 F-value: 9.	352*		GRS F-value: 16.76**					
Panel (C: Five facto	or model									
	$(R_{it}$	$-R_{ft}) = \alpha$	$_i + \beta_i (R_{mt} -$	$-R_{ft}) + s_i S_i$	$MB_t + h_i HM_i$	$L_t + r_i RMW_t$	$+ c_i CMA_t +$	ε _t	(3)		
		Seco	ond year ret	urns			Thi	rd year retu	ırns		
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5	
C1	0.001	0.000	0.000	0.000	0.004***	0.002*	0.000	-0.001	0.000	0.005**	
u	(1.42)	(0.48)	(0.56)	(0.17)	(2.37)	(1.61)	(0.59)	(1.26)	(0.02)	(2.66)	
ß	1.069***	1.108***	1.059***	1.134***	1.108***	1.067***	1.110***	1.034***	1.103***	1.121***	
Ρ	(31.64)	(34.04)	(33.87)	(31.37)	(22.13)	(30.16)	(31.76)	(35.83)	(29.43)	(21.87)	
S	0.285***	0.347***	0.488***	0.594***	0.762***	0.268***	0.359***	0.461***	0.569***	0.713***	
	(6.48)	(8.18)	(11.97)	(12.59)	(11.66)	(5.79)	(7.84) 0.107***	(12.20)	(11.60)	(10.63)	
h	0.089	(4.03)	(5.00)	(6.40)	(4, 42)	(0.013)	(3.34)	(5.53)	(7.12)	(4.18)	
	0.042	0.281***	0.319***	0.195***	-0.016	-0.064	0.281***	0.365***	0.243***	0.161*	

Table 6. The effect of second and third year returns for quantile portfolios formed on (V/P)Panel A: One-factor model

		Seco	ond year ret	urns		Third year returns					
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5	
	0.001	0.000	0.000	0.000	0.004***	0.002*	0.000	-0.001	0.000	0.005**	
α	(1.42)	(0.48)	(0.56)	(0.17)	(2.37)	(1.61)	(0.59)	(1.26)	(0.02)	(2.66)	
P	1.069***	1.108***	1.059***	1.134***	1.108***	1.067***	1.110***	1.034***	1.103***	1.121***	
р	(31.64)	(34.04)	(33.87)	(31.37)	(22.13)	(30.16)	(31.76)	(35.83)	(29.43)	(21.87)	
6	0.285***	0.347***	0.488^{***}	0.594***	0.762***	0.268***	0.359***	0.461***	0.569***	0.713***	
3	(6.48)	(8.18)	(11.97)	(12.59)	(11.66)	(5.79)	(7.84)	(12.20)	(11.60)	(10.63)	
h	0.089	0.222***	0.268***	0.391***	0.373***	0.015	0.197***	0.270***	0.452***	0.363***	
п	(1.57)	(4.03)	(5.09)	(6.40)	(4.42)	(0.26)	(3.34)	(5.53)	(7.12)	(4.18)	
r	0.042	0.281***	0.319***	0.195***	-0.016	-0.064	0.281***	0.365***	0.243***	0.161*	
1	(0.70)	(4.75)	(5.61)	(2.97)	(-0.18)	(-1.01)	(4.42)	(6.96)	(3.57)	(1.73)	
	-0.132*	0.067	0.210***	0.142*	0.251**	0.277***	0.168**	0.138**	0.077	0.037	
C	(1.68)	(0.88)	(2.88)	(1.69)	(2.15)	(3.37)	(2.07)	(2.05)	(0.89)	(0.31)	
Adj.R ²	0.865	0.864	0.868	0.864	0.795	0.856	0.851	0.883	0.853	0.782	
		GRS	F-value 14	74**			GRS	E-value 25	51**		

The table reports the regression results of the CAPM and Fama and French's three- and five-factor models by regressing the excess monthly returns of the V/P quintile portfolios against the market excess returns and combinations of SMB, HML, CMA and RMW factors. The performance of different models was compared by calculating the GRS F-statistics. The significant GRS F-statistics indicate that the combined intercepts are not equal to zero. All the NYSE, AMEX, NASDAQE stocks in the sample, were sorted into five quintile portfolios based on V/P at the end of June each year. V/P is the fundamental value at the end of December of year t-1, measured using the previous five years' data, divided by the stock price at the end of June of year t. Q1 consists of stocks with the lowest V/P ratio and Q5 consists of stocks with the highest V/P ratio. R_{it} are the monthly returns of the quintile portfolio i. R_{mt} are the monthly returns of the market index. R_{ft} denotes the monthly riskless rate on treasury bills. SMB is the size factor and is measured as the returns on small stocks minus the returns on the large stocks. HML is the book to market ratio factor and is measured as the returns on shares with a high B/M ratio minus the return on stocks with a low B/M ratio. RMW is the profitability factor and is measured as the return on the robust stocks (top 30% of shares with the highest operating income) minus the return on the weak stocks (bottom 30% of shares with the smallest operating income). CMA is the investment factor whose returns make up the difference between the conservative stocks (top 30% of firms with the smallest changes in total assets) and the returns on the most aggressive stocks (lowest 30% of firms with the greatest change in total assets). The monthly data for R_{mt}, R_{ft}, SMB, HML, RMW and CMA were downloaded from Ken French's website of data for 276 months over the period from 1993 to 2015. *, ** and *** denote significant level at 10%, 5% and 1%, respectively (for two-sided tests). Overlapping returns, in any given month t, is calculated by holding a series of portfolios that are selected in the current year as well as in the previous year (t-1) and the year before that (t-2). Specifically, overlapping returns for each quantile portfolio (Q1-Q5) consists of 1/3 of the first year returns for each quantile portfolio formed in year t, and 1/3 of the second year returns for each quantile portfolio formed in year t-1 and 1/3 of the third year returns for each quantile portfolios formed in year t-2.

Panel A:	One-factor 1	nodel								
			(1	$R_{it} - R_{ft}) =$	$\alpha_i + \beta_i (R_{mt}$	$(-R_{ft}) + \varepsilon_t$	(1)			
		Fir	st year retu	rns			Ove	rlapping ret	urns	
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5
~	0.002**	0.003**	0.002*	0.003*	0.006**	0.003***	0.003***	0.003**	0.004**	0.007^{***}
α	(1.97)	(2.18)	(1.65)	(1.93)	(2.32)	(2.83)	(2.70)	(2.46)	(2.52)	(3.30)
0	1.094***	1.096***	1.007***	1.128***	1.269***	1.093***	1.051***	0.969***	1.085***	1.174**
р	(39.68)	(34.45)	(26.54)	(25.95)	(21.33)	(42.86)	(34.93)	(28.94)	(27.22)	(22.93)
Adj.R2	0.851	0.811	0.718	0.709	0.623	0.869	0.816	0.752	0.729	0.656
		GR	S F-value: 6	.703			GRS	F-value: 13	.54**	

Table 7. The effect of dividends for quintile portfolios formed on (V/P)

Panel B: Three-factor model

$(R_{it} - R_{ft}) = \alpha_i + \beta_i (R_{mt} - $	$R_{\epsilon t}$) + $s_i SMB_t$ + $h_i HML_t$ + ϵ_t	(2)
$(n_{it} n_{ft}) = \alpha_i + p_i(n_{mt})$	n_{ft} , $s_l s_l s_l s_l s_l s_t$, $n_l m s_t$, c_t	(2)

		Fir	st year retu	rns		Overlapping returns				
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5
~	0.002**	0.002*	0.001	0.001	0.004**	0.002***	0.002**	0.002**	0.002**	0.005***
α	(2.14)	(1.71)	(0.93)	(1.42)	(2.10)	(2.85)	(2.27)	(2.00)	(2.24)	(3.46)
P	1.051***	1.088***	1.015***	1.099***	1.200***	1.058***	1.048***	0.969***	1.065***	1.116***
ρ	(40.42)	(38.27)	(32.96)	(33.96)	(25.42)	(44.94)	(40.78)	(38.71)	(38.60)	(29.21)
6	0.244***	0.278***	0.329***	0.580***	0.833***	0.271***	0.273***	0.357***	0.538***	0.759***
3	(6.78)	(7.06)	(7.71)	(12.90)	(12.71)	(8.30)	(7.67)	(10.29)	(14.04)	(14.31)
h	-0.079**	0.291***	0.495***	0.489***	0.447***	0.026	0.329***	0.463***	0.518***	0.450***
п	(-2.16)	(7.19)	(11.29)	(10.62)	(6.66)	(0.79)	(9.00)	(12.99)	(13.19)	(8.28)
Adj.R2	0.875	0.858	0.825	0.848	0.775	0.895	0.873	0.869	0.877	0.819
		GR	S F-value: (6.84			GRS	F-value: 1	5.04*	

Panel C: Five-factor model

 $(R_{it} - R_{ft}) = \alpha_i + \beta_i (R_{mt} - R_{ft}) + s_i SMB_t + h_i HML_t + r_i RMW_t + c_i CMA_t + \varepsilon_t$

	(11	ji) i		<i>j</i> (<i>)</i> (ιi	ι ι ι	ιι	L		
		Fir	rst year retu	rns		Overlapping returns				
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5
~	0.002*	0.000	-0.001	0.000	0.004*	0.002**	0.000	-0.000	0.001	0.005***
u	(1.82)	(0.50)	(-0.78)	(0.19)	(1.95)	(2.53)	(0.81)	(-0.03)	(0.98)	(2.99)
0	1.063***	1.159***	1.124***	1.182***	1.204***	1.067***	1.126***	1.075***	1.136***	1.141***
р	(33.90)	(34.64)	(32.01)	(31.10)	(21.18)	(37.64)	(37.88)	(38.80)	(35.13)	(24.82)
0	0.249***	0.331***	0.426***	0.633***	0.811***	0.267***	0.348***	0.460***	0.600***	0.761***
3	(6.12)	(7.63)	(9.33)	(12.81)	(10.96)	(7.25)	(9.02)	(12.76)	(14.27)	(12.73)
h	-0.107**	0.151***	0.293***	0.316***	0.411***	-0.003	0.191***	0.276***	0.386***	0.382**
п	(-2.03)	(2.68)	(4.94)	(4.92)	(4.28)	(-0.08)	(3.82)	(5.91)	(7.06)	(4.92)
r	0.024	0.195***	0.335***	0.208***	-0.044	0.002	0.252***	0.343***	0.217***	0.033
1	(0.43)	(3.23)	(5.27)	(3.03)	(-0.43)	(0.04)	(4.69)	(6.85)	(3.72)	(0.40)
0	0.047	0.185**	0.229***	0.254***	0.114	0.068	0.140**	0.189***	0.152**	0.133
ι	(0.65)	(2.37)	(2.79)	(2.85)	(0.86)	(1.03)	(2.02)	(2.92)	(2.01)	(1.24)
Adj.R2	0.874	0.864	0.843	0.855	0.775	0.895	0.882	0.889	0.883	0.819
		GRS	5 F-value: 12	2.67*			GRS	F-value: 22	.84**	

The table reports the regression results of the CAPM and Fama and French's three- and five-factor models by regressing the excess monthly returns of the V/P quintile portfolios against the market excess returns and combinations of SMB, HML, CMA and RMW factors. The performance of different models was compared by calculating the GRS F-statistics. The significant GRS F-statistics indicate that the combined intercepts are not equal to zero. All the NYSE, AMEX, NASDAQE stocks in the sample, were sorted into five quintile portfolios based on V/P at the end of June each year. V/P is the fundamental value at the end of December of year t-1, measured using the previous five years' data, divided by the stock price at the end of June of year t. Q1 consists of stocks with the lowest V/P ratio and Q5 consists of stocks with the highest V/P ratio. R_{it} are the monthly returns of the quintile portfolio *i*. R_{mt} are the monthly returns of the market index. R_{ft} denotes the monthly riskless rate on treasury bills. SMB is the size factor and is measured as the returns on small stocks minus the returns on the large stocks. HML is the book to market ratio factor and is measured as the returns on shares with a high B/M ratio minus the return on stocks with a low B/M ratio. RMW is the profitability factor and is measured as the return on the robust stocks (top 30% of shares with the highest operating income) minus the return on the weak stocks (bottom 30% of shares with the smallest operating income). CMA is the investment factor whose returns make up the difference between the conservative stocks (top 30% of firms with the smallest changes in total assets) and the returns on the most aggressive stocks (lowest 30% of firms with the greatest change in total assets). The monthly data for R_{mt}, R_{ft}, SMB, HML, RMW and CMA were downloaded from Ken French's website of data for 276 months over the period from 1993 to 2015. *, ** and *** denote significant level at 10%, 5% and 1%, respectively (for two-sided tests). Overlapping returns, in any given month t, is calculated by holding a series of portfolios that are selected in the current year as well as in the previous year (t-1) and the year before that (t-2). Specifically, overlapping returns for each quantile portfolio (Q1- Q5) consists of 1/3 of the first year returns for each quantile portfolio formed in year t, and 1/3 of the second year returns for each quantile portfolio formed in year t-2 and 1/3 of the third year returns for each quantile portfolios formed in year t-3.

(3)

Pallel A										
		6		$(R_{it} - R_{ft}) =$	$= \alpha_i + \beta_i (R_m)$	$(t - R_{ft}) + \varepsilon_t$	(1)			
	- 01	Sec	ond year ret	urns			1n	ird year retu	irns	05
	QI 0.002**	QZ	U3	Q4	Q5 0.007***	QI 0.004***	QZ	U3	U4	U5
α	(2.27)	(2.26)	(2.82)	(2.61)	(2.20)	(2.02)	(2 22)	(2.51)	(2.58)	(2 72)
	(2.27) 1 110***	(2.30) 1 03/1***	0 963***	(2.01) 1 093***	(3.20) 1 138***	(2.93) 1 079***	1 023***	(2.31) A Q22***	(2.38) 1 0/18***	1 129***
β	(37.52)	(31.73)	(26.49)	(25.88)	(20.53)	(33,41)	(29.33)	(26.97)	(23.98)	(21.33)
Adi.R2	0.842	0.795	0.727	0.717	0.615	0.816	0.773	0.743	0.695	0.643
· · · · , · · · -		GRS	F-value: 11	.97*			GRS	F-value: 12	.63*	
Panel B	Three-facto	or model								
i unei b		, mouel	$(R_{it} - R_{ct})$	$= \alpha_i + \beta_i (R)$	$(mt - R_{ct}) + s$	$SMB_{\star} + h_{H}$	$ML_{\star} + \varepsilon_{\star}$	(2)		
		Sec	ond vear ret	urns		101101 - 10111	Thi	ird vear retu	irns	
	01	02	03	04	05	01	02	03	04	05
	0.002**	0.002**	0.003***	0.003**	0.006***	0 003***	0.002*	0.002**	0.003**	0.007***
α	(2.20)	(1.96)	(2.65)	(2.48)	(3.40)	(2.78)	(1.85)	(2.10)	(2.26)	(3.81)
0	1.077***	1.034**	0.957***	1.072***	1.078***	1.046***	1.023***	0.931***	1.038**	1.079***
β	(38.19)	(36.76)	(34.65)	(35.18)	(25.74)	(34.75)	(33.65)	(35.54)	(32.71)	(25.29)
6	0.263***	0.259***	0.396***	0.538***	0.786***	0.308***	0.276***	0.348***	0.493***	0.662***
3	(6.74)	(6.65)	(10.35)	(12.74)	(13.55)	(7.40)	(6.56)	(9.61)	(11.21)	(11.20)
h	0.045	0.342***	0.461***	0.514***	0.478***	0.115***	0.361***	0.447***	0.563***	0.431***
11	(1.13)	(8.55)	(11.76)	(11.89)	(8.04)	(2.69)	(8.38)	(12.06)	(12.54)	(7.14)
Adj.R2	0.864	0.853	0.851	0.861	0.792	0.850	0.838	0.861	0.849	0.782
		GRS	F-value: 12	.86*			GRS	F-value: 13	.83*	
Panel F:	Five-factor	model								
	(R_i)	$(t-R_{ft})=a$	$\alpha_i + \beta_i (R_{mt})$	$-R_{ft}) + s_i S$	$SMB_t + h_i HM$	$L_t + r_i RMW_t$	$+ c_i CMA_t +$	$-\varepsilon_t$	(3)	
		Sec	ond year ret	urns		Third year returns				
	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5
a	0.002**	0.000	0.000	0.001	0.005***	0.003**	0.000	0.000	0.001	0.006***
u	(2.21)	(0.65)	(0.85)	(1.40)	(2.95)	(2.38)	(0.45)	(0.19)	(1.21)	(3.18)
в	1.069***	1.109***	1.060***	1.137***	1.094***	1.068***	1.110**	1.034***	1.104***	1.121***
,	(31.61)	(34.01)	(33.99)	(31.54)	(22.10)	(30.25)	(31.61)	(35.97)	(29.62)	(21.93)
S	0.286***	0.348***	0.489***	0.595***	0.763***	0.268***	0.359**	0.463***	0.569***	0.713***
	(0.42)	(0.19)	(12.05)	(12.05)	(11.00) 0 272***	(5.81)	(7.02)	(12.50)	(11.05) 0.452***	0 264***
h	(1.60)	(4 04)	(5.09)	(6.42)	(4.43)	(0.26)	(3 33)	(5 55)	(7 17)	(4 21)
	0.042	0 279***	0 319***	0 196***	-0 011	-0.064	0 277**	0 364***	0 239***	0 158*
r	(0.68)	(4.70)	(5.61)	(2.99)	(-0.23)	(-1.01)	(4.33)	(6.95)	(3.52)	(1.70)
	-0.131*	0.073	0.215***	0.143*	0.237**	0.279***	0.171*	0.141**	0.081	0.038
С	(-1.66)	(0.95)	(2.96)	(1.70)	(2.17)	(3.39)	(2.10)	(2.11)	(0.93)	(0.32)
Adj.R2	0.865	0.864	0.869	0.865	0.795	0.856	0.850	0.884	0.855	0.783
		GRS	F-value: 12	.94*			GRS	F-value: 20.	77**	

Table 8. The effect of dividends on second and third year returns for quintile portfolios formed on (V/P)

The table reports the regression results of the CAPM and Fama and French's three- and five-factor models by regressing the excess monthly returns of the V/P quintile portfolios against the market excess returns and combinations of SMB, HML, CMA and RMW factors. The performance of different models was compared by calculating the GRS F-statistics. The significant GRS F-statistics indicate that the combined intercepts are not equal to zero. All the NYSE, AMEX, NASDAQE stocks in the sample, were sorted into five quintile portfolios based on V/P at the end of June each year. V/P is the fundamental value at the end of December of year t-1, measured using the previous five years' data, divided by the stock price at the end of June of year t. Q1 consists of stocks with the lowest V/P ratio and Q5 consists of stocks with the highest V/P ratio. R_{it} are the monthly returns of the quintile portfolio i. R_{mt} are the monthly returns of the market index. R_{ft} denotes the monthly riskless rate on treasury bills. SMB is the size factor and is measured as the returns on small stocks minus the returns on the large stocks. HML is the book to market ratio factor and is measured as the returns on shares with a high B/M ratio minus the return on stocks with a low B/M ratio. RMW is the profitability factor and is measured as the return on the robust stocks (top 30% of shares with the highest operating income) minus the return on the weak stocks (bottom 30% of shares with the smallest operating income). CMA is the investment factor whose returns make up the difference between the conservative stocks (top 30% of firms with the smallest changes in total assets) and the returns on the most aggressive stocks (lowest 30% of firms with the greatest change in total assets). The monthly data for R_{mt} , R_{ft} , SMB, HML, RMW and CMA were downloaded from Ken French's website of data for 276 months over the period from 1993 to 2015. *, ** and *** denote significant level at 10%, 5% and 1%, respectively (for two-sided tests). Overlapping returns, in any given month t, is calculated by holding a series of portfolios that are selected in the current year as well as in the previous year (t-1) and the year before that (t-2). Specifically, overlapping returns for each quantile portfolio (Q1-Q5) consists of 1/3 of the first year returns for each quantile portfolio formed in year t, and 1/3 of the second year returns for each quantile portfolio formed in year t-2 and 1/3 of the third year returns for each quantile portfolios formed in year t-3.