

**Document supplementary to manuscript:**

**Capitalisation of R&D and the informativeness of stock prices:  
Pre- and post-IFRS evidence**

Information and results discussed in the manuscript but tables are omitted in the interest of brevity.

In this document	Manuscript reference	Content
Table A	fn. 4, page 6	Capitalisation criteria under UK GAAP and IFRS
Table B	fn. 23, page 18	Details of the 238 firms for which we have found the annual reports
Table C	fn. 24, page 19	Repeat estimation results using alternative deflators
Table D	fn. 26, page 22	Pearson and Spearman correlations coefficients for the variables used in the share price anticipation of future earnings tests
Table E	fn. 26, page 22	Pearson (diagonally below) and Spearman (diagonally above) correlations coefficients for the variables used in the estimation of IMR
Table F	Sensitivity test 1	Estimation results controlling for various firm-specific characteristics
Table G	Sensitivity tests 2, 3, 4, & 5	Estimation results with four adjustments to the method
Table H	Sensitivity test 6	Repeat estimation results excluding firm-years of 'mandatory expensers'
Table I	Sensitivity test 7	Repeat estimation results using three years ahead earnings as the focal independent variable (re: FERC)
Table J	Sensitivity test 8	Repeat estimation results using the proportion of capitalised development costs relative to total R&D expenditure instead of a dummy variable
Table K	Sensitivity test 9	Estimation results using three-way interaction

**Table A [capitalisation criteria under UK GAAP and IFRS]**

SSAP 13 (paragraph 25)	IAS 38 (Paragraph 57)
<ul style="list-style-type: none"> <li>a. There is a clearly define project and</li> <li>b. The related expenditure is separately identifiable, and</li> <li>c. The outcome of such a project has been assessed with reasonable certainty as to: <ul style="list-style-type: none"> <li>i. Its technical feasibility, and</li> <li>ii. Its ultimate commercial viability considered in the light of factors such as likely market conditions (including competing products) public opinion, consumer and environmental legislation, and</li> </ul> </li> <li>d. The aggregate of the deferred development costs, and further development costs, and related production selling and administration costs is reasonably expected to be exceeded by related future sales or other revenues, and</li> <li>e. Adequate resources exist, or are reasonably expected to be available to enable the project to be completed and to provide any consequential increases in working capital</li> </ul>	<ul style="list-style-type: none"> <li>a. The technical feasibility of completing the intangible asset so that it will be available for use or sale</li> <li>b. Its intention to complete the intangible asset and use or sell it</li> <li>c. Its ability to use or sell the intangible asset</li> <li>d. How the intangible asset will generate probable future economic benefits. Among other things, the entity can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or if it is to be used internally the usefulness of the intangible asset</li> <li>e. The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset</li> <li>f. Its ability to measure reliably the expenditure attributable to the intangible asset during its development.</li> </ul>

**Table B [Details of the 238 firms for which we have found the annual reports]**

Name	IFRS adoption year	One year before the adoption of IFRS		First year of IFRS adoption
		R&D capitalised	policy to expense all R&D	
21ST CENTURY TECHNOLOGY	2007	no	no	change to capitaliser
600 GROUP	2006	no	yes	change to capitaliser
ACAMBIS	2005	no	no note	expenser
ACCESS INTELLIGENCE	2008	yes	no	change to expenser
ADVANCED MED.SLTN.GP.	2007	no	yes	change to capitaliser
AGA RANGEMASTER GROUP	2005	yes	no	capitaliser before and after
ALIZYME	2005	no	yes	expenser
ALLERGY THERP.	2008	no	yes	expenser
ALLOCATE SOFTWARE	2008	no	yes	expenser
ALUMASC GROUP	2006	no	yes	change to capitaliser
AMINO TECHNOLOGIES	2008	no	yes	change to capitaliser
ANITE	2006	no	yes	change to capitaliser
AORTECH INTERNATIONAL	2008	no	yes	expenser
APC TECHNOLOGY GROUP	2008	no	yes	expenser
API GROUP	2006	no	yes	expenser
ARCONTECH GROUP	2008	no	yes	expenser
ARM HOLDINGS	2005	no	yes	change to capitaliser
ASSETCO	2008	no	yes	expenser
ASSOCIATED BRIT.FOODS	2006	no	yes	expenser
ASTRAZENECA	2005	no	yes	expenser
ATLANTIC GLOBAL	2007	no	yes	expenser
AVEVA GROUP	2006	no	yes	expenser
AVINGTRANS	2008	yes	no	capitaliser before and after
AVON RUBBER	2006	yes	no	capitaliser before and after
AXIS-SHIELD	2005	no	yes	change to capitaliser
AXON GROUP	2005	no	yes	change to capitaliser
BABCOCK INTERNATIONAL	2006	yes	no	capitaliser before and after
BAE SYSTEMS	2005	no	yes	change to capitaliser
BALFOUR BEATTY	2005	no	yes	expenser
BBA AVIATION	2005	no	yes	expenser
BIOCOMPATIBLES	2005	no	yes	change to capitaliser
BIOQUELL	2005	no	yes	change to capitaliser
BIOSEEK	2005	no	yes	expenser
BOND INTL.SOFTWARE	2007	yes	no	capitaliser before and after
BRAIME (TF&JH) HDG.	2005	no	yes	expenser
BRITISH AMERICAN TOBACCO	2005	no	yes	change to capitaliser
BT GROUP	2006	no	yes	expenser
BTG	2006	no	yes	expenser
CELSIS INTL.	2006	no	yes	change to capitaliser
CHAMBERLIN	2006	no	yes	change to capitaliser
CHARACTER GROUP	2008	no	yes	change to capitaliser
CHEMRING GROUP	2006	yes	no	capitaliser before and after
CHLORIDE GROUP	2006	no	yes	expenser
CML MICROSYSTEMS	2006	no	yes	change to capitaliser
COBHAM	2005	no	yes	change to capitaliser
COMMUNISIS	2005	no	yes	expenser
CONCURRENT TECHNOLOGIES	2007	no	yes	change to capitaliser
CONNAUGHT	2006	yes	no	capitaliser before and after
CONSORT MEDICAL	2006	no	yes	expenser
CORERO NETWORK SECURITY	2007	no	yes	expenser
CORIN GROUP	2005	yes	no	capitaliser before and after
CRODA INTERNATIONAL	2005	no	yes	expenser
CROPPER (JAMES)	2006	no	yes	expenser
CYPROTEX	2007	no	no	expenser
D4T4 SOLUTIONS	2005	no	yes	expenser
DAIRY CREST	2006	no	yes	expenser
DE LA RUE	2006	no	yes	change to capitaliser
DECHRA PHARMACEUTICALS	2006	no	yes	change to capitaliser
DELCAM	2007	no	yes	change to capitaliser
DELTA	2005	no	yes	expenser
DELTEX MEDICAL GROUP	2007	no	yes	change to capitaliser

DENSITRON TECHNOLOGIES	2007	no	yes	expenser
DEVRO	2005	no	yes	change to capitaliser
DEWHURST	2006	no	yes	change to capitaliser
DIAGEO	2006	no	yes	expenser
DIALIGHT	2005	no	yes	change to capitaliser
DOMINO PRINTING SCIENCES	2006	no	yes	expenser
DRS DATA	2005	no	yes	change to capitaliser
DYSON GROUP	2006	no	yes	change to capitaliser
ECO ANIMAL HEALTH GROUP	2008	no	no	change to capitaliser
EIDOS	2006	no	yes	change to capitaliser
ELECO SOFTWARE	2008	no	yes	expenser
ELECTRONIC DATA PROC.	2006	no	yes	expenser
ELEKTRON TECHNOLOGY	2007	no	no	expenser
ENERGY TECHNIQUE	2008	no	yes	expenser
FEEDBACK	2008	no	yes	change to capitaliser
FENNER	2006	no	no	expenser
FFASTFILL	2007	no	yes	change to capitaliser
FIDESSA GROUP	2005	no	yes	change to capitaliser
FILTRONIC	2006	no	yes	expenser
FOCUS SOLUTIONS	2008	no	yes	change to capitaliser
FUTURA MEDICAL	2007	no	yes	expenser
GAMES WORKSHOP	2006	no	yes	change to capitaliser
GB GROUP	2006	no	yes	expenser
GENETIX GROUP	2005	no	yes	change to capitaliser
GENUS	2007	yes	no	capitaliser before and after
GKN	2005	no	yes	expenser
GLAXOSMITHKLINE	2005	no	yes	expenser
GOLDSHIELD GROUP	2006	no	yes	expenser
GOOCH AND HOUSEGO	2008	no	yes	change to capitaliser
GOODWIN	2006	yes	no	capitaliser before and after
GRAFENIA	2008	yes	no	capitaliser before and after
GRESHAM COMPUTING	2005	no	yes	change to capitaliser
GROUP NBT	2008	no	yes	change to capitaliser
GW PHARMACEUTICALS	2008	no	yes	expenser
HALMA	2006	no	yes	change to capitaliser
HILL & SMITH	2005	no	yes	change to capitaliser
HIWAVE TECHNOLOGIES	2006	no	yes	expenser
HORNBY	2006	no	yes	expenser
HYDRO INTERNATIONAL	2007	no	yes	change to capitaliser
IDOX	2008	no	yes	change to capitaliser
IMAGE SCAN HOLDINGS	2008	no	no	expenser
IMAGELINX	2007	no	yes	expenser
IMAGINATION TECHNOLOGIES	2006	no	yes	expenser
IMI	2005	no	yes	change to capitaliser
IMMUD.SYSTEM HDG.	2008	no	yes	change to capitaliser
INDIGOVISION GROUP	2008	no	yes	expenser
INNOVISION RESH.& TECH.	2008	no	yes	change to capitaliser
INSPIRATION HLTHCR.GP.	2007	no	yes	expenser
INTEC TELECOM SYS.	2006	no	yes	change to capitaliser
INTELEK	2006	yes	no	capitaliser before and after
IPPLUS	2008	no	yes	change to capitaliser
IQE	2007	no	yes	change to capitaliser
IS PHARMA	2008	no	yes	change to capitaliser
IXICO	2006	no	yes	expenser
JAMES HALSTEAD	2008	no	yes	expenser
JOHNSON MATTHEY	2006	no	yes	change to capitaliser
K3 BUSINESS TECH.GP.	2007	yes	no	capitaliser before and after
KCOM GROUP	2006	yes	no	capitaliser before and after
KOFAX	2006	no	yes	expenser
LAIRD	2005	no	yes	change to capitaliser
LATCHWAYS	2006	no	yes	change to capitaliser
LIDCO GROUP	2008	no	no	expenser
LOGICA	2005	no	yes	change to capitaliser
LONDON SECURITY	2007	no	yes	expenser
LOW & BONAR	2006	no	yes	change to capitaliser
LPA GROUP	2008	no	yes	expenser
MACRO 4	2006	no	yes	change to capitaliser
MARSHALLS	2005	no	yes	change to capitaliser
MEDIWATCH	2008	no	yes	change to capitaliser

MEGGITT	2005	yes	no	capitaliser before and after
MIRADA	2008	yes	no	capitaliser before and after
MOLINS	2005	no	yes	change to capitaliser
MS INTERNATIONAL	2006	yes	no	capitaliser before and after
NCIPHER	2005	no	yes	expenser
NETCALL	2008	no	yes	expenser
NETPLAY TV	2007	no	yes	expenser
NETWORK TECHNOLOGY	2006	no	yes	change to capitaliser
NEWMARK SECURITY	2007	no	yes	change to capitaliser
OMG	2008	no	yes	change to capitaliser
ONEVIEW GROUP	2008	no	yes	change to capitaliser
OPSEC SECURITY GROUP	2006	no	yes	expenser
OSMETECH	2007	no	yes	expenser
OXFORD BIOMEDICA	2005	no	yes	change to capitaliser
OXFORD INSTRUMENTS	2006	no	yes	change to capitaliser
PACE	2006	no	yes	change to capitaliser
PARSEQ	2007	no	yes	change to capitaliser
PENNANT INTL.GROUP	2007	no	yes	change to capitaliser
PETARDS GROUP	2007	no	yes	change to capitaliser
PHOTO-ME INTL.	2006	yes	no	capitaliser before and after
PILAT MEDIA GLOBAL	2007	yes	no	capitaliser before and after
PIPEHAWK	2008	yes	no	capitaliser before and after
PITTARD	2007	no	no	expenser
PLANT HEALTHCARE	2007	no	yes	change to capitaliser
PORTMEIRION GROUP	2007	no	yes	expenser
PORTRAIT SOFTWARE	2008	no	yes	expenser
PORVAIR	2006	no	yes	change to capitaliser
PROLOGIC	2008	no	yes	change to capitaliser
PROTEOME SCIENCES	2007	no	yes	expenser
PROTHERICS	2006	no	yes	expenser
PROVEXIS	2008	no	yes	change to capitaliser
PROXIMAGEN GROUP	2008	no	no	expenser
PSION	2005	no	yes	expenser
PZ CUSSONS	2006	no	yes	expenser
RECKITT BENCKISER GROUP	2005	no	yes	change to capitaliser
REDHALL GROUP	2008	yes	no	capitaliser before and after
REDROW	2006	no	no note	expenser
REFLEC	2007	yes	no	capitaliser before and after
RELIANCE GENEMEDIX	2008	no	no	change to capitaliser
RENISHAW	2006	no	yes	change to capitaliser
RENOLD	2006	no	yes	expenser
REXAM	2005	no	yes	expenser
RICARDO	2006	no	yes	expenser
RM	2006	no	yes	expenser
ROTORK	2005	no	yes	change to capitaliser
RPC GROUP	2006	no	yes	expenser
SAGE GROUP	2006	no	yes	change to capitaliser
SAREUM HOLDINGS	2008	no	yes	expenser
SCAPA GROUP	2006	no	yes	expenser
SCISYS	2007	no	yes	expenser
SDL	2005	no	yes	expenser
SECURITY RESEARCH GROUP	2008	no	yes	change to capitaliser
SENIOR	2005	no	yes	expenser
SHANKS GROUP	2006	no	yes	expenser
SHIRE	2005	no	yes	expenser
SILENCE THERAPEUTICS	2005	no	yes	expenser
SMITH & NEPHEW	2005	no	yes	expenser
SMITH (DS)	2006	no	yes	expenser
SMITHS GROUP	2006	no	yes	change to capitaliser
SOLID STATE	2008	no	no	expenser
SOPHEON	2005	no	yes	change to capitaliser
SOURCE BIOSCIENCE	2005	yes	no	capitaliser before and after
SPECTRIS	2005	no	yes	expenser
SPICE	2008	yes	no	capitaliser before and after
SPIRAX-SARCO ENGR.	2005	no	yes	change to capitaliser

SPIRENT COMMUNICATIONS	2005	no	yes	expenser
SSL INTERNATIONAL	2006	no	yes	expenser
SUMMIT THERAPEUTICS	2008	no	yes	expenser
SURFACE TRANSFORMS	2008	no	yes	expenser
SURGICAL INNOVATIONS GP.	2007	yes	no	capitaliser before and after
SWALLOWFIELD	2006	no	yes	expenser
SWP GROUP	2008	no	yes	expenser
SYMPHONY ENV.TECHS.	2007	yes	no	capitaliser before and after
SYNAIRGEN	2008	no	no	expenser
SYNECTICS	2008	yes	no	capitaliser before and after
SYNTHOMER	2005	no	yes	expenser
TATE & LYLE	2006	no	yes	change to capitaliser
TELSPEC	2005	no	yes	change to capitaliser
TEX HOLDINGS	2005	no	yes	expenser
THORPE (FW)	2008	no	yes	change to capitaliser
TIKIT GROUP	2007	no	yes	change to capitaliser
TIMEWEAVE	2006	no	no	expenser
TITON HOLDINGS	2006	no	yes	expenser
TOROTRAK	2006	no	yes	expenser
TOTAL SYSTEMS	2006	no	yes	expenser
TOUCHSTAR	2007	yes	no	capitaliser before and after
TP GROUP	2008	no	yes	expenser
TREATT	2006	no	yes	expenser
TRIBAL GROUP	2006	yes	no	capitaliser before and after
TT ELECTRONICS	2005	no	yes	change to capitaliser
ULTRA ELECTRONICS HDG.	2005	no	no note	change to capitaliser
ULTRASIS	2008	no	yes	change to capitaliser
UNILEVER (UK)	2005	no	yes	expenser
UNIVERSE GROUP	2005	yes	no	capitaliser before and after
VERNALIS	2005	no	no	expenser
VERO SOFTWARE	2006	no	yes	change to capitaliser
VICTREX	2006	no	yes	expenser
VISLINK	2005	yes	no	capitaliser before and after
VITEC GROUP	2005	yes	no	capitaliser before and after
VODAFONE GROUP	2006	no	yes	expenser
VOLEX	2006	no	yes	expenser
VT GROUP	2006	no	yes	expenser
WEIR GROUP	2005	no	yes	expenser
WORKPLACE SYSTEMS INTL.	2008	no	yes	change to capitaliser
XAAR	2005	yes	no	capitaliser before and after
ZETEX	2005	no	yes	change to capitaliser
ZOTEFOAMS	2005	no	yes	expenser
ZYTRONIC	2008	yes	no	capitaliser before and after

**Table C [repeat estimation results using alternative deflators]**

Regression estimations of market returns on earnings, with dummy explanatory variable for the capitalisation of R&D expenditure

Panel A: Empirical results from estimation of Equation (3) using alternative deflators						
Variables	Total assets		Average market value		Average total assets	
	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS
Constant	0.459** (2.23)	-0.052 (-0.49)	0.453* (1.89)	-0.090 (-0.91)	0.435** (2.21)	0.003 (0.03)
E <sub>t+1</sub>	0.827*** (2.82)	0.550* (1.90)	0.699*** (3.62)	1.317*** (4.35)	0.873*** (4.09)	0.474* (1.90)
E <sub>t</sub>	0.631*** (2.71)	0.591* (1.80)	0.759*** (4.23)	0.697** (2.40)	0.625*** (2.69)	0.771*** (2.69)
E <sub>t-1</sub>	-1.136*** (-4.76)	-0.744*** (-3.73)	-0.883*** (-3.95)	-0.758*** (-4.81)	-1.160*** (-5.02)	-0.825*** (-3.35)
R <sub>t+1</sub>	-0.210*** (-4.70)	-0.093** (-2.45)	-0.190*** (-5.02)	-0.126*** (-3.64)	-0.181*** (-4.46)	-0.084** (-2.22)
CAP <sub>t</sub> *E <sub>t+1</sub>	2.919* (1.80)	0.245 (0.76)	1.548*** (3.02)	-0.368 (-1.07)	2.683* (1.74)	0.203 (0.67)
CAP <sub>t</sub> *E <sub>t</sub>	1.563 (1.26)	0.536 (1.44)	-0.444 (-1.33)	0.025 (0.08)	1.541 (1.22)	0.425 (1.32)
CAP <sub>t</sub> *E <sub>t-1</sub>	-6.117** (-2.19)	-0.648** (-2.00)	-0.978 (-1.13)	-0.078 (-0.35)	-6.316** (-2.29)	-0.416 (-1.17)
CAP <sub>t</sub> *R <sub>t+1</sub>	-0.155 (-1.13)	0.032 (0.69)	-0.208 (-1.36)	0.032 (0.73)	-0.151 (-1.22)	0.031 (0.67)
CAP <sub>t</sub>	0.210** (2.01)	0.017 (0.59)	0.287* (1.84)	0.053** (2.04)	0.189** (1.99)	0.005 (0.17)
IMR <sub>t</sub>	0.050 (0.62)	0.132* (1.95)	0.101 (1.19)	0.114* (1.87)	0.038 (0.50)	0.103 (1.53)
Industry/Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,069	1,321	1,097	1,345	1,081	1,333
Adj. R <sup>2</sup>	0.246	0.203	0.175	0.247	0.269	0.207
F-statistic	13.75	21.97	16.72	24.79	15.19	22.02
Mean VIF	2.10	3.63	1.57	3.10	2.10	3.75
Max. VIF	3.22	6.47	1.97	5.00	3.48	6.79

Panel B: Testing change in FERC and ERC as between pre- and post-IFR adoption phases

	Assets		Average market value		Average assets	
	Difference	z-statistic	Difference	z-statistic	Difference	z-statistic
<u>Incremental FERC</u>						
Δ(incremental FERC) Capitalisers	-2.674* -1.65	-1.65	-1.916*** -3.08	-3.08	-2.480 -1.62	-1.62
<u>FERC</u>						
ΔFERC of Expensers	-0.278	-0.67	0.618* 1.72	1.72	-0.399 -1.23	-1.23
ΔFERC of Capitalisers	-2.952* -1.86	-1.86	-1.298** -2.46	-2.46	-2.879* -1.92	-1.92
<u>ERC</u>						
ΔERC of Expensers	-0.041	-0.11	-0.062 -0.19	-0.19	0.146 0.43	0.43
ΔERC of Capitalisers	-1.068 -0.91	-0.91	0.408 1.26	1.26	-0.970 -0.80	-0.80

Notes: Standard errors are clustered at the firm level. t-statistics in parentheses. The detail of industry and year fixed effects are omitted in the interests of brevity. \* Significance at the 10% level (two-tailed test).

\*\* Significance at the 5% level (two-tailed test). \*\*\* Significance at the 1% level (two-tailed test).

All variables are defined in Appendix 2.

**Table D [Pearson and Spearman correlations coefficients  
for the variables used in the share price anticipation of future earnings tests]**

	$R_t$	$E_{t+1}$	$E_t$	$E_{t+1}$	$R_{t+1}$	$IMR_t$	$VIF$
$R_t$	1.000	0.258	0.162	-0.134	0.008	-0.023	1.08
	.	(0.000)	(0.000)	(0.000)	(0.694)	(0.261)	
$E_{t+1}$	0.152	1.000	0.559	0.397	0.397	-0.158	1.52
	(0.000)	.	(0.000)	(0.000)	(0.000)	(0.000)	
$E_t$	0.118	0.503	1.000	0.518	0.120	-0.160	1.60
	(0.000)	(0.000)	.	(0.000)	(0.000)	(0.000)	
$E_{t-1}$	-0.087	0.342	0.462	1.000	0.147	-0.150	1.35
	(0.000)	(0.000)	(0.000)	.	(0.000)	(0.000)	
$R_{t+1}$	-0.080	0.210	-0.054	0.008	1.000	-0.056	1.10
	(0.000)	(0.000)	(0.007)	(0.685)	.	(0.006)	
$IMR_t$	0.037	-0.119	-0.128	-0.122	-0.040	1.000	1.03
	(0.068)	(0.000)	(0.000)	(0.000)	(0.049)	.	

Notes: This table shows both Pearson (diagonally below) and Spearman (diagonally above) correlations coefficients for the variables used in the share price anticipation of future earnings tests. P-values in brackets. All variables are defined in Appendix 2.

**Table E [Pearson and Spearman correlations coefficients for the variables used in the estimation of IMR.]**

	SIZE <sub>t</sub>	ROA <sub>t</sub>	LEV <sub>t</sub>	CAPEX <sub>t</sub>	CV_RD	CV_EARN	ZERO_BEAT <sub>t</sub>	PAST_BEAT <sub>t</sub>	BETA <sub>t</sub>	RDINT <sub>t</sub>	RD_VALUE <sub>t</sub>	BM <sub>t</sub>	VIF
SIZE <sub>t</sub>	1.000	0.370	0.297	0.012	-0.058	0.112	-0.172	-0.019	0.078	-0.301	0.545	-0.400	1.46
	.	(0.000)	(0.000)	(0.561)	(0.003)	(0.000)	(0.000)	(0.336)	(0.000)	(0.000)	(0.000)	(0.000)	
ROA <sub>t</sub>	0.285	1.000	0.064	-0.009	-0.097	0.236	-0.307	-0.045	-0.161	-0.181	0.333	-0.219	1.58
	(0.000)	.	(0.001)	(0.650)	(0.000)	(0.000)	(0.000)	(0.023)	(0.000)	(0.000)	(0.000)	(0.000)	
LEV <sub>t</sub>	0.104	-0.104	1.000	0.345	0.009	0.129	-0.120	-0.139	-0.016	-0.367	0.256	-0.206	1.15
	(0.000)	(0.000)	.	(0.000)	(0.649)	(0.000)	(0.000)	(0.000)	(0.412)	(0.000)	(0.000)	(0.000)	
CAPEX <sub>t</sub>	-0.058	0.024	0.136	1.000	-0.045	0.232	-0.062	-0.116	-0.046	-0.410	-0.235	0.472	1.39
	(0.004)	(0.222)	(0.000)	.	(0.025)	(0.000)	(0.002)	(0.000)	(0.020)	(0.000)	(0.000)	(0.000)	
CV_RD	-0.035	-0.064	0.017	0.026	1.000	-0.133	-0.069	-0.061	0.089	-0.129	0.087	-0.004	1.14
	(0.074)	(0.001)	(0.403)	(0.192)	.	(0.000)	(0.001)	(0.002)	(0.000)	(0.000)	(0.000)	(0.859)	
CV_EARN	0.084	0.131	-0.022	0.085	-0.142	1.000	-0.078	-0.020	-0.040	-0.171	-0.006	0.119	1.05
	(0.000)	(0.000)	(0.261)	(0.000)	(0.000)	.	(0.000)	(0.320)	(0.046)	(0.000)	(0.765)	(0.000)	
ZERO_BEAT <sub>t</sub>	-0.177	-0.075	-0.048	-0.020	-0.058	-0.042	1.000	0.170	0.075	0.307	-0.222	0.082	1.17
	(0.000)	(0.000)	(0.016)	(0.303)	(0.003)	(0.035)	.	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
PAST_BEAT <sub>t</sub>	-0.034	-0.046	-0.062	-0.109	-0.087	0.025	0.170	1.000	0.035	0.330	-0.123	-0.036	1.11
	(0.086)	(0.019)	(0.002)	(0.000)	(0.000)	(0.216)	(0.000)	.	(0.078)	(0.000)	(0.000)	(0.067)	
BETA <sub>t</sub>	0.010	-0.210	-0.018	-0.038	0.044	-0.021	0.084	0.025	1.000	0.152	-0.059	-0.037	1.08
	(0.631)	(0.000)	(0.368)	(0.053)	(0.027)	(0.285)	(0.000)	(0.201)	.	(0.000)	(0.003)	(0.059)	
RDINT <sub>t</sub>	-0.235	-0.522	-0.043	-0.215	-0.051	-0.092	0.300	0.256	0.170	1.000	-0.298	-0.235	1.82
	(0.000)	(0.000)	(0.030)	(0.000)	(0.010)	(0.000)	(0.000)	(0.000)	(0.000)	.	(0.000)	(0.000)	
RD_VALUE <sub>t</sub>	0.270	0.072	0.122	0.002	0.269	0.012	-0.081	-0.103	-0.092	-0.131	1.000	-0.727	1.22
	(0.000)	(0.000)	(0.000)	(0.907)	(0.000)	(0.540)	(0.000)	(0.000)	(0.000)	(0.000)	.	(0.000)	
BM <sub>t</sub>	-0.376	0.021	-0.189	0.447	0.005	0.012	0.104	-0.055	-0.006	-0.182	-0.172	1.000	1.72
	(0.000)	(0.300)	(0.000)	(0.000)	(0.819)	(0.540)	(0.000)	(0.005)	(0.758)	(0.000)	(0.000)	.	

Notes: This table shows both Pearson (diagonally below) and Spearman (diagonally above) correlations coefficients for the variables used in the estimation of IMR. P-values in brackets. All variables are defined in Appendix 2.

**Table F [Estimation results controlling for various firm-specific characteristics]**

Regression estimations of market returns on earnings, with dummy explanatory variable for the capitalisation of R&D expenditure; and controlling for various firm-specific characteristics.

Panel A: Empirical results from estimation of Equation (5) including, in turn, four alternative additional control variables (with interactions)												
Variables	Additional control:		Size		Losses		Earnings variability		Book-to-market ratio		All controls	
	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS
Constant	0.484*	-0.074	0.481*	-0.214**	0.508*	-0.074	0.678**	0.123	0.789**	0.077		
	(1.88)	(-0.72)	(1.69)	(-2.05)	(1.96)	(-0.72)	(2.52)	(1.18)	(2.51)	(0.72)		
$E_{t+1}$	0.598***	0.963***	0.782***	0.437	0.770***	1.061***	1.548***	0.992***	1.543***	0.155		
	(3.87)	(3.70)	(3.29)	(1.27)	(5.25)	(4.39)	(5.00)	(3.55)	(3.17)	(0.42)		
$E_t$	0.768***	0.567**	0.663***	0.494**	0.645***	0.472**	0.882***	0.719**	1.332***	0.828***		
	(4.45)	(2.48)	(3.86)	(2.08)	(4.02)	(2.09)	(3.16)	(2.55)	(3.88)	(2.84)		
$E_{t-1}$	-0.718***	-0.727***	-0.566***	-0.443***	-0.608***	-0.629***	-1.797***	-0.959***	-1.412***	-0.586**		
	(-3.60)	(-4.80)	(-2.64)	(-2.70)	(-3.23)	(-4.11)	(-5.02)	(-5.08)	(-3.42)	(-2.55)		
$R_{t+1}$	-0.160***	-0.140***	-0.092**	-0.149***	-0.172***	-0.123***	-0.252***	-0.104**	-0.163*	-0.166**		
	(-3.57)	(-3.86)	(-2.05)	(-3.09)	(-3.84)	(-3.44)	(-3.71)	(-2.47)	(-1.93)	(-2.52)		
$CAP_t * E_{t+1}$	1.205***	-0.250	1.165**	-0.084	1.218***	-0.296	1.100**	-0.294	1.175**	-0.000		
	(2.69)	(-0.86)	(2.56)	(-0.27)	(2.63)	(-1.04)	(2.48)	(-1.10)	(2.57)	(-0.00)		
$CAP_t * E_t$	-0.363	0.091	-0.189	-0.025	-0.259	0.121	-0.372	0.074	-0.402	-0.039		
	(-0.92)	(0.33)	(-0.47)	(-0.09)	(-0.66)	(0.44)	(-0.99)	(0.28)	(-0.98)	(-0.16)		
$CAP_t * E_{t-1}$	-1.889**	-0.129	-2.061**	-0.095	-2.050**	-0.206	-1.438*	-0.179	-1.521*	-0.113		
	(-2.14)	(-0.56)	(-2.26)	(-0.43)	(-2.13)	(-0.90)	(-1.68)	(-0.79)	(-1.87)	(-0.51)		
$CAP_t * R_{t+1}$	-0.232	0.044	-0.220	0.034	-0.236	0.053	-0.243	0.059	-0.203	0.030		
	(-1.47)	(1.05)	(-1.46)	(0.77)	(-1.49)	(1.23)	(-1.52)	(1.37)	(-1.36)	(0.71)		
$CAP_t$	0.359**	0.052*	0.365**	0.041	0.356**	0.053*	0.330**	0.053*	0.305*	0.043		
	(2.14)	(1.92)	(2.16)	(1.49)	(2.14)	(1.97)	(2.05)	(1.94)	(1.92)	(1.54)		
$IMR_t$	0.078	0.096	0.073	0.149**	0.083	0.139**	0.082	0.035	0.111	0.020		
	(0.84)	(1.52)	(0.78)	(2.35)	(0.91)	(2.23)	(0.88)	(0.56)	(1.21)	(0.33)		
Industry/Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Observations	1,072	1,327	1,072	1,327	1,072	1,327	1,072	1,327	1,072	1,327		
Adj. $R^2$	0.183	0.236	0.187	0.237	0.183	0.228	0.207	0.251	0.212	0.271		
F-statistic	14.87	19.61	14.25	19.40	14.24	17.85	14.90	21.21	11.05	22.99		
Mean VIF	1.79	2.59	2.12	3.13	1.83	2.53	3.46	3.21	3.58	3.40		
Max. VIF	2.63	4.43	3.37	6.22	2.54	4.43	7.29	6.22	11.92	10.46		

(Continued)

**Table F. Continued**

Panel B: Testing change in FERC and ERC as between pre- and post-IFR adoption phases										
Additional control:	Size		Losses		Earnings variability		Book-to-market ratio		All controls	
	Difference	z-statistic	Difference	z-statistic	Difference	z-statistic	Difference	z-statistic	Difference	z-statistic
<u>Incremental FERC</u>										
<u>Δ(incremental FERC)</u>										
Δ(FERC) Capitalisers	-1.456***	-2.65	-1.249**	-2.23	-1.514***	-2.69	-1.394***	-2.63	-1.175**	-2.20
<u>ERC</u>										
ΔERC of Expensers	0.365	1.18	-0.345	-0.85	0.291	1.02	-0.556	-1.33	-1.387**	-2.28
ΔERC of Capitalisers	-1.090**	-2.28	-1.594***	-2.93	-1.223**	-2.40	-1.951***	-2.98	-2.563***	-3.19
<u>ERC</u>										
ΔERC of Expensers	-0.202	-0.77	-0.169	-0.65	-0.173	-0.7	-0.162	-0.42	-0.505	-1.19
ΔERC of Capitalisers	0.253	0.64	-0.005	-0.01	0.208	0.5	0.284	0.57	-0.141	-0.28

Notes: Standard errors are clustered at the firm level. *t*-statistics in parentheses. The detail of industry and year fixed effects and the estimated coefficients on the added control variable (and its interactions with the other explanatory variables) in each regression are omitted in the interests of brevity. The sign predictions for the coefficient estimates are as shown in Table 1. Size is a dummy variable, taking the value one if the firm's market value of equity is above our sample median; zero otherwise. Losses is a dummy variable, taking the value one if there is a profit one year ahead; and zero if there is a loss. Earnings variability is a dummy variable, taking the value one if the firm's standard deviation of earnings is below the industry median; zero otherwise. All other variables are defined in Appendix 2.

\* Significance at the 10% level (two-tailed test). \*\* Significance at the 5% level (two-tailed test). \*\*\* Significance at the 1% level (two-tailed test).

**Table G [Estimation results with four adjustments to the method]**

Regression estimations of market returns on earnings, with dummy explanatory variable for the capitalisation of R&D expenditure under four alternative adjustments to the method

Variables	Dropping second year of IFRS adoption		Dropping financial crisis years		Using as-if-expensed earnings		Dropping CAP variable	
	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS	Pre-IFRS	Post-IFRS
Constant	0.478*	-0.367***	0.478*	-0.198	0.634**	0.045	0.708***	0.123***
	(1.88)	(-3.06)	(1.88)	(-1.55)	(2.49)	(0.39)	(4.12)	(2.95)
E <sub>t+1</sub>	0.801***	1.075***	0.801***	1.139***	0.799***	1.043***	0.956***	0.890***
	(5.68)	(4.06)	(5.68)	(3.84)	(5.68)	(4.59)	(6.76)	(6.65)
E <sub>t</sub>	0.601***	0.378	0.601***	0.616**	0.605***	0.485**	0.584***	0.549***
	(4.12)	(1.45)	(4.12)	(2.44)	(4.04)	(2.14)	(4.06)	(4.35)
E <sub>t-1</sub>	-0.764***	-0.612***	-0.764***	-0.782***	-0.768***	-0.741***	-0.972***	-0.810***
	(-4.19)	(-3.59)	(-4.19)	(-4.66)	(-4.20)	(-5.08)	(-4.29)	(-7.08)
R <sub>t+1</sub>	-0.191***	-0.127***	-0.191***	-0.079*	-0.194***	-0.116***	-0.226***	-0.089***
	(-4.69)	(-3.90)	(-4.69)	(-1.68)	(-4.73)	(-3.65)	(-4.89)	(-3.73)
CAP <sub>t</sub> *E <sub>t+1</sub>	1.171**	-0.269	1.171**	-0.419	0.968**	-0.370		
	(2.52)	(-0.84)	(2.52)	(-1.15)	(2.00)	(-1.29)		
CAP <sub>t</sub> *E <sub>t</sub>	-0.255	0.226	-0.255	0.250	-0.030	0.099		
	(-0.66)	(0.66)	(-0.66)	(0.78)	(-0.06)	(0.37)		
CAP <sub>t</sub> *E <sub>t-1</sub>	-1.971**	-0.288	-1.971**	-0.296	-1.913*	-0.014		
	(-2.05)	(-0.99)	(-2.05)	(-1.07)	(-1.90)	(-0.06)		
CAP <sub>t</sub> *R <sub>t+1</sub>	-0.224	0.053	-0.224	0.045	-0.193	0.059		
	(-1.40)	(1.06)	(-1.40)	(0.65)	(-1.28)	(1.35)		
CAP <sub>t</sub>	0.363**	0.053*	0.363**	0.079**	0.344**	0.037		
	(2.17)	(1.68)	(2.17)	(2.35)	(2.09)	(1.39)		
IMR <sub>t</sub>	0.081	0.115	0.081	0.211***	0.002	0.052		
	(0.87)	(1.53)	(0.87)	(2.73)	(0.02)	(0.69)		
Industry/Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,072	1,094	1,072	1,017	1,072	1,328	1,072	1,327
Adj. R <sup>2</sup>	0.184	0.226	0.184	0.141	0.181	0.219	0.170	0.225
F-statistic	16.36	20.21	16.36	8.955	15.64	20.77	19.11	26.67
Mean VIF	1.58	2.67	1.58	2.79	1.59	2.83	1.44	1.32
Max. VIF	2.04	3.82	2.04	4.02	2.08	4.32	1.74	1.49

**Table G.** Continued

	Panel B: Testing change in FERC and ERC as between pre- and post-IFR adoption phases			
	Dropping first year after IFRS adoption	Dropping financial crisis years	Using as-if-expensed earnings	Dropping CAP variable
Observations	2,166	2,089	2,400	2,339
<u>Incremental FERC</u>				
$\Delta$ (incremental FERC)	-1.440**	-1.590***	-1.338**	n/a
Capitalisers				
<u>FERC</u>				
$\Delta$ FERC Expensers	0.274	0.338	0.244	n/a
$\Delta$ FERC Capitalisers	-1.165**	-1.252**	-1.094**	n/a
$\Delta$ FERC	n/a	n/a	n/a	-0.066
<u>ERC</u>				
$\Delta$ ERC Expensers	-0.223	-0.015	-0.120	n/a
$\Delta$ ERC Capitalisers	0.258	0.519	0.009	n/a
$\Delta$ ERC	n/a	n/a	n/a	-0.035

Notes: Standard errors are clustered at the firm level. *t*-statistics in parentheses. All variables are defined in Appendix 2.

\* Significance at the 10% level (two-tailed test). \*\* Significance at the 5% level (two-tailed test).

\*\*\* Significance at the 1% level (two-tailed test).

**Table H [repeat estimation results excluding firm-years of ‘mandatory expensers’]**  
 Regression estimations of market returns on earnings, with dummy explanatory variable for the capitalisation of  
 R&D expenditure

Panel A: Empirical results from estimation of Equation (2)				
Variables	Predicted sign	Full sample	Pre-IFRS	Post-IFRS
Constant	?	0.635** (2.10)	0.790** (2.23)	-0.098 (-0.89)
$E_{t+1}$	+	0.869*** (4.24)	0.849*** (2.84)	0.858*** (2.86)
$E_t$	+	0.761*** (4.06)	0.801*** (3.43)	0.756** (2.16)
$E_{t-1}$	-	-0.927*** (-4.94)	-1.102*** (-3.91)	-0.736*** (-3.39)
$R_{t+1}$	-	-0.201*** (-4.93)	-0.255*** (-4.17)	-0.115*** (-2.71)
$CAP_t * E_{t+1}$	+	0.105 (0.44)	0.981* (1.93)	-0.094 (-0.28)
$CAP_t * E_t$	?	-0.169 (-0.74)	-0.514 (-1.21)	-0.129 (-0.33)
$CAP_t * E_{t-1}$	?	-0.201 (-0.65)	-1.539 (-1.55)	-0.166 (-0.59)
$CAP_t * R_{t+1}$	?	0.039 (0.70)	-0.165 (-1.03)	0.045 (0.88)
$CAP_t$	?	0.096* (1.89)	0.334** (1.99)	0.030 (0.97)
$IMR_t$	?	0.131** (2.17)	0.014 (0.11)	0.141** (2.12)
Industry/Year fixed effects		Yes	Yes	Yes
Observations		1,938	724	1,214
Adj. $R^2$		0.199	0.202	0.223
F-statistic		23.93	11.96	25.86
Mean VIF		2.70	1.78	4.01
Max. VIF		4.04	2.36	6.87

Panel B: Testing change in FERC and ERC as between pre- and post-IFR adoption phases			
	Predicted sign	Difference	$z$ -statistic
<u>Incremental FERC</u>			
Δ(incremental FERC) Capitalisers	-	-1.075*	-1.75
<u>FERC</u>			
ΔFERC Expensers	?	0.009	0.02
ΔFERC Capitalisers	-	-1.067**	-2.22
<u>ERC</u>			
ΔERC Expensers	?	-0.045	-0.11
ΔERC Capitalisers	?	0.340	0.84

Notes: Standard errors are clustered at the firm level.  $t$ -statistics in parentheses. The detail of industry and year fixed effects are omitted in the interests of brevity. All variables are defined in Appendix 2.

\* Significance at the 10% level (two-tailed test). \*\* Significance at the 5% level (two-tailed test).

\*\*\* Significance at the 1% level (two-tailed test).

**Table I [repeat estimation results using three years ahead earnings as the focal independent variable]**

Regression estimations of market returns on earnings, with dummy explanatory variable for the capitalisation of R&D expenditure

Panel A: Empirical results from estimation of Equation (2)				
Variables	Predicted sign	Full sample	Pre-IFRS	Post-IFRS
Constant	?	0.439* (1.91)	0.427* (1.86)	-0.067 (-0.49)
$E_{t+1,t+3}$	+	0.157*** (2.61)	0.124* (1.70)	0.200* (1.96)
$E_t$	+	0.774*** (4.69)	0.913*** (4.76)	0.575* (1.86)
$E_{t-1}$	-	-0.679*** (-5.06)	-0.654*** (-3.52)	-0.773*** (-4.62)
$R_{t+1,t+3}$	-	-0.178*** (-4.88)	-0.217*** (-3.95)	-0.127*** (-3.31)
$CAP_t * E_{t+1,t+3}$	+	0.113 (1.21)	0.621* (1.92)	0.014 (0.12)
$CAP_t * E_t$	?	-0.139 (-0.60)	-0.269 (-0.54)	0.030 (0.08)
$CAP_t * E_{t-1}$	?	-0.489 (-1.46)	-3.060** (-2.34)	-0.019 (-0.08)
$CAP_t * R_{t+1,t+3}$	?	0.025 (0.43)	-0.266* (-1.89)	0.086* (1.70)
$CAP_t$	?	0.109* (1.78)	0.394** (2.04)	0.016 (0.44)
IMR <sub>t</sub>	?	0.129*** (2.71)	0.083 (1.26)	0.147* (1.82)
Industry/Year fixed effects		Yes	Yes	Yes
Observations		1,909	881	1,028
Adj. $R^2$		0.172	0.182	0.223
F-statistic		19.78	13.39	19.35
Mean VIF		2.06	1.56	2.83
Max. VIF		2.66	1.99	4.14

Panel B: Testing change in FERC and ERC as between pre- and post-IFR adoption phases			
	Predicted sign	Difference	$z$ -statistic
<u>Incremental FERC</u>			
$\Delta(\text{incremental FERC}) \text{ Capitalisers}$	-	-0.607*	-1.76
<u>FERC</u>			
$\Delta\text{FERC Expensers}$	?	0.077	0.62
$\Delta\text{FERC Capitalisers}$	-	-0.531*	-1.73
<u>ERC</u>			
$\Delta\text{ERC Expensers}$	?	-0.338	-1.00
$\Delta\text{ERC Capitalisers}$	?	-0.039	-0.08

Notes: Standard errors are clustered at the firm level.  $t$ -statistics in parentheses. The detail of industry and year fixed effects are omitted in the interests of brevity. All variables are defined in Appendix 2.

\* Significance at the 10% level (two-tailed test). \*\* Significance at the 5% level (two-tailed test).

\*\*\* Significance at the 1% level (two-tailed test).

**Table J [Regression estimations of market returns on earnings, with proportion of capitalised R&D expenditure relative to the total R&D expenditure]**

Panel A: Empirical results from estimation of Equation (2)				
Variables	Predicted sign	Full sample	Pre-IFRS	Post-IFRS
<i>Constant</i>	?	0.320*	0.417*	-0.079
		(1.69)	(1.81)	(-0.79)
$E_{t+1}$	+	0.871***	0.797***	0.992***
		(8.54)	(5.94)	(5.41)
$E_t$	+	0.595***	0.563***	0.639***
		(5.50)	(4.08)	(4.14)
$E_{t-1}$	-	-0.703***	-0.743***	-0.739***
		(-6.11)	(-4.29)	(-5.54)
$R_{t+1}$	-	-0.156***	-0.183***	-0.126***
		(-6.50)	(-4.73)	(-4.60)
$CAP_t * E_{t+1}$	+	0.425*	1.691***	-0.260
		(1.78)	(2.64)	(-0.81)
$CAP_t * E_t$	?	-0.157	0.698	-0.294
		(-0.48)	(0.83)	(-0.74)
$CAP_t * E_{t-1}$	?	-0.823	-2.879***	-0.231
		(-1.62)	(-2.78)	(-0.74)
$CAP_t * R_{t+1}$	?	-0.039	-0.333	0.136***
		(-0.39)	(-1.39)	(2.72)
$CAP_t$	?	0.232**	0.628**	0.060
		(2.13)	(2.05)	(1.29)
$IMR_t$	?	0.159***	0.102	0.133**
		(3.22)	(1.17)	(2.16)
<i>Industry fixed effects</i>		Yes	Yes	Yes
<i>Year fixed effects</i>		Yes	Yes	Yes
<i>Observations</i>		2,399	1,072	1,327
<i>Adj. R<sup>2</sup></i>		0.192	0.194	0.230
<i>F-statistic</i>		24.01	17.00	21.27
<i>Mean VIF</i>		1.70	2.08	1.91
<i>Max. VIF</i>		2.16	1.60	2.61

  

Panel B: Testing change in FERC and ERC between pre- and post-IFR adoption phases			
	Predicted sign	Difference	z-statistic
<u>Incremental FERC</u>			
$\Delta(\text{incremental FERC})$	-	-1.951***	-2.61
<u>Capitalisers</u>			
<u>FERC</u>			
$\Delta\text{FERC Expensers}$	?	0.195	0.84
$\Delta\text{FERC Capitalisers}$	-	-1.757**	-2.47
<u>ERC</u>			
$\Delta\text{ERC Expensers}$	?	0.077	0.40
$\Delta\text{ERC Capitalisers}$	?	-0.916	-1.05

Notes: Standard errors are clustered at the firm level. *t*-statistics in parentheses. The detail of industry and year fixed effects are omitted in the interests of brevity. All variables are defined in Appendix 2. \*, \*\* and \*\*\* denote significance at the 10%, 5% and 1% respectively.

**Table K [Estimation results using three-way interaction]**

Regression estimations of market returns on earnings, with dummy explanatory variable for the capitalisation of R&D expenditure

Constant	0.353*
	(1.79)
$E_{t+1}$	0.782***
	(5.62)
$E_t$	0.578***
	(4.01)
$E_{t-1}$	-0.789***
	(-4.29)
$R_{t+1}$	-0.188***
	(-4.64)
$CAP_t * E_{t+1}$	<b>1.282***</b>
	<b>(2.68)</b>
$CAP_t * E_t$	-0.209
	(-0.52)
$CAP_t * E_{t-1}$	-1.943**
	(-2.00)
$CAP_t * R_{t+1}$	-0.213
	(-1.33)
$CAP_t$	0.196
	(0.68)
$IMR_t$	0.136**
	(2.39)
$E_{t+1} * IFRS$	0.317
	(1.12)
$E_t * IFRS$	-0.034
	(-0.14)
$E_{t-1} * IFRS$	0.114
	(0.50)
$R_{t+1} * IFRS$	0.070
	(1.37)
$CAP_t * E_{t+1} * IFRS$	<b>-1.595***</b>
	<b>(-2.70)</b>
$CAP_t * E_t * IFRS$	0.342
	(0.71)
$CAP_t * E_{t-1} * IFRS$	1.757*
	(1.77)
$CAP_t * R_{t+1} * IFRS$	0.266
	(1.58)
IFRS	0.038
	(0.30)
IFRS * CAP	-0.232
	(-1.10)
$IMR_t * IFRS$	0.109
	(0.69)
Industry/Year fixed effects	Yes
Observations	2,441
Adj. $R^2$	0.204
F-statistic	20.70***
Mean VIF	8.59
Max. VIF	34.16

Notes: Standard errors are clustered at the firm level. All variables are defined in Appendix 2.

\* Significance at the 10% level (two-tailed test). \*\* Significance at the 5% level (two-tailed test).

\*\*\* Significance at the 1% level (two-tailed test)