This document contains additional material to accompany the paper "The Impact of the Financial Crisis on Research and Development." In tabe A1 we present the estimation results with the equally weighted index of financial constraints and in table A2 we present the results computed with the absolute values of balance-sheet variables, instead of their ratios to total assets.

A1 Panel Estimation Results – Alternative Measure of Financial Constraints (equally weighted WW index)

The table reports results estimating the model described in equation (2) replacing the Whited and Wu index with the index, where each of the coefficient of WW index is replaced by equal weight of 0.17, but the signs of coefficients are kept from the original index The sample contains all firms available in the Compustat U.S. database with SIC 283, 357, 366, 367, 382, 384 and 737 as the primary industry classification. For the dynamic estimation according to Arellano and Bover (1995) we use the third lag in both specifications and apply system GMM. In column three we only instrument for the dynamic part and contemporaneous sales ($RD_{i,t-1}$, $RD^2_{i,t-1}$ and $Sales_t$) and use all other variables directly as instruments. Standard errors robust to heteroscedasticity and with-in firm serial correlation are reported in parenthesis.

	OLS – Random Effects	OLS – Fixed Effects	AB-Dynamic Part Instrumented	AB-All Instrumented
RD_{t-1}	1.051***	0.684***	1.165***	1.220***
	(0.038)	(0.054)	(0.333)	(0.147)
RD_{t-1}^2	-0.250***	-0.173***	-0.398**	-0.278***
	(0.026)	(0.030)	(0.177)	(0.073)
Dum_{Crisis}	0.025***	0.027***	0.052***	0.021***
	(0.006)	(0.006)	(0.019)	(0.006)
FD_{t-1}	-0.000	-0.000	-0.001**	-0.000
	(0.000)	(0.000)	(0.001)	(0.000)
FD_{t-1}* Dum_{Crisis}	0.000	0.000	0.001**	0.001**
	(0.000)	(0.000)	(0.000)	(0.000)
FC_{t-1}	0.006	-0.020	0.020	-0.051
	(0.011)	(0.017)	(0.047)	(0.045)
FC_{t-1}*Dum_{Crisis}	0.008***	0.006***	0.011***	0.008***
	(0.001)	(0.001)	(0.003)	(0.002)
$Sales_{t-1}$	-0.117***	-0.074***	-0.102***	-0.124***
	(0.013)	(0.013)	(0.021)	(0.046)
$Sales_t$	0.129***	0.140***	0.140***	0.153***
	(0.013)	(0.014)	(0.020)	(0.052)
CF_{t-1}	-0.007	0.000	0.008	-0.031*
	(0.008)	(0.010)	(0.016)	(0.018)
357.SIC3	-0.049***		-0.056	-0.109
	(0.010)		(0.639)	(0.221)
366.SIC3	-0.046***		1.134	0.096
	(0.012)		(0.893)	(0.162)
367.SIC3	-0.044***		-0.014	-0.005
	(0.008)		(0.408)	(0.126)
382.SIC3	-0.046***		-0.815	-0.129
	(0.011)		(0.829)	(0.144)
384.SIC3	-0.052***		-0.611	-0.147
	(0.009)		(0.490)	(0.154)
737.SIC3	-0.049***		-0.950***	-0.083
	(0.008)		(0.359)	(0.111)
_cons	0.069*	-0.033	0.340	-0.144
	(0.038)	(0.057)	(0.263)	(0.163)
Observations	11378	11378	11378	11378
R^2	0.600	0.524		
Instruments			48	145
Hansen (p-value)			0.201	0.002

Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A2 Panel Estimation Results – absolute values of variables

The table reports results estimating the model described in equation (2). The sample contains all firms available in the Compustat U.S. database with SIC 283, 357, 366, 367, 382 384 and 737 as the primary industry classification. For the dynamic estimation according to Arellano and Bover (1995) we use the third lag in both specifications and apply system GMM. In column three we only instrument for the dynamic part and contemporaneous sales ($RD_{i,t-1}, RD^2_{i,t-1}$ and $Sales_t$) and use all other variables directly as instruments. Standard errors robust to heteroscedasticity and with-in firm serial correlation are reported in parenthesis. In contrast to other regressions in the paper, we do not scale all balance-sheet variables by total assets, by use the natural logarithm of their values instead.

	OLS – Random Effects	OLS – Fixed Effects	AB-Dynamic Part Instrumented	AB-All Instrumented
RD_{t-1}	0.816***	0.501***	0.901***	0.753***
	(0.045)	(0.080)	(0.116)	(0.107)
RD_{t-1}^2	0.002	0.006	0.002	0.005
	(0.002)	(0.004)	(0.006)	(0.005)
Dum_{Crisis}	-0.002	0.009	0.002	-0.003
	(0.013)	(0.012)	(0.018)	(0.016)
FD_{t-1}	0.003***	0.002***	0.003***	0.001
	(0.001)	(0.001)	(0.001)	(0.002)
FD_{t-1}* Dum_{Crisis}	0.003	0.001	0.002	0.000
	(0.002)	(0.002)	(0.002)	(0.002)
FC_{t-1}	-1.060***	-0.629*	-0.208	-0.265
	(0.262)	(0.328)	(0.903)	(0.637)
FC_{t-1}*Dum_{Crisis}	0.080***	0.062***	0.075***	0.060***
	(0.021)	(0.016)	(0.024)	(0.021)
$Sales_{t-1}$	-0.273***	-0.099*	-0.284***	-0.226***
	(0.049)	(0.055)	(0.098)	(0.078)
$Sales_t$	0.302***	0.331***	0.249***	0.236***
	(0.044)	(0.047)	(0.086)	(0.068)
CF_{t-1}	0.044***	0.035***	0.072***	0.135***
	(0.009)	(0.010)	(0.020)	(0.033)
357.SIC3	0.036		0.516	-0.139
	(0.046)		(0.416)	(0.245)
366.SIC3	-0.043		-0.062	0.068
	(0.042)		(0.303)	(0.200)
367.SIC3	-0.054		0.026	-0.182
	(0.040)		(0.333)	(0.155)
382.SIC3	-0.055		-0.285	-0.142
	(0.040)		(0.455)	(0.184)
384.SIC3	-0.101**		0.353	-0.150
	(0.041)		(0.267)	(0.196)
737.SIC3	-0.004		-0.101	-0.065
	(0.037)		(0.302)	(0.148)
_cons	0.024	0.646	0.395	0.429
	(0.243)	(0.533)	(0.816)	(0.647)
N	5902	5902	5902	5902
R^2		0.685		
Instruments		0.684		
Hansen (p-value)				

Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$