

Web Appendix to
“Bank and sovereign credit risk: Spillover effects from
the ECB’s Comprehensive Assessment”

Appendix A: Data summary statistics

Table A.1 reports descriptive statistics for our bank and sovereign CDS spread and bank equity data, distinguishing the Pre-CA, Soft Info, and Post-CA periods. The pre-announcement period ranges from 29 September to 10 October, the Soft Info period ranges from 13 to 24 October, and the Post-CA ranges from 27 October to 04 November; see Section 2 of the main text.

Table A.1: Descriptive statistics

Summary statistics for bank CDS spreads, sovereign CDS spreads, and bank equity data. CDS spreads are in levels and basis points. The cumulative equity returns are computed as the log difference between the levels at the beginning and the end of the respective period. For each group we report the mean, standard deviation, the 5th and 95th percentiles, and the total number of observations. Within each panel, we distinguish five non-stressed countries, four stressed countries (GIPS; Greece, Ireland, Portugal, Spain), and Italy.

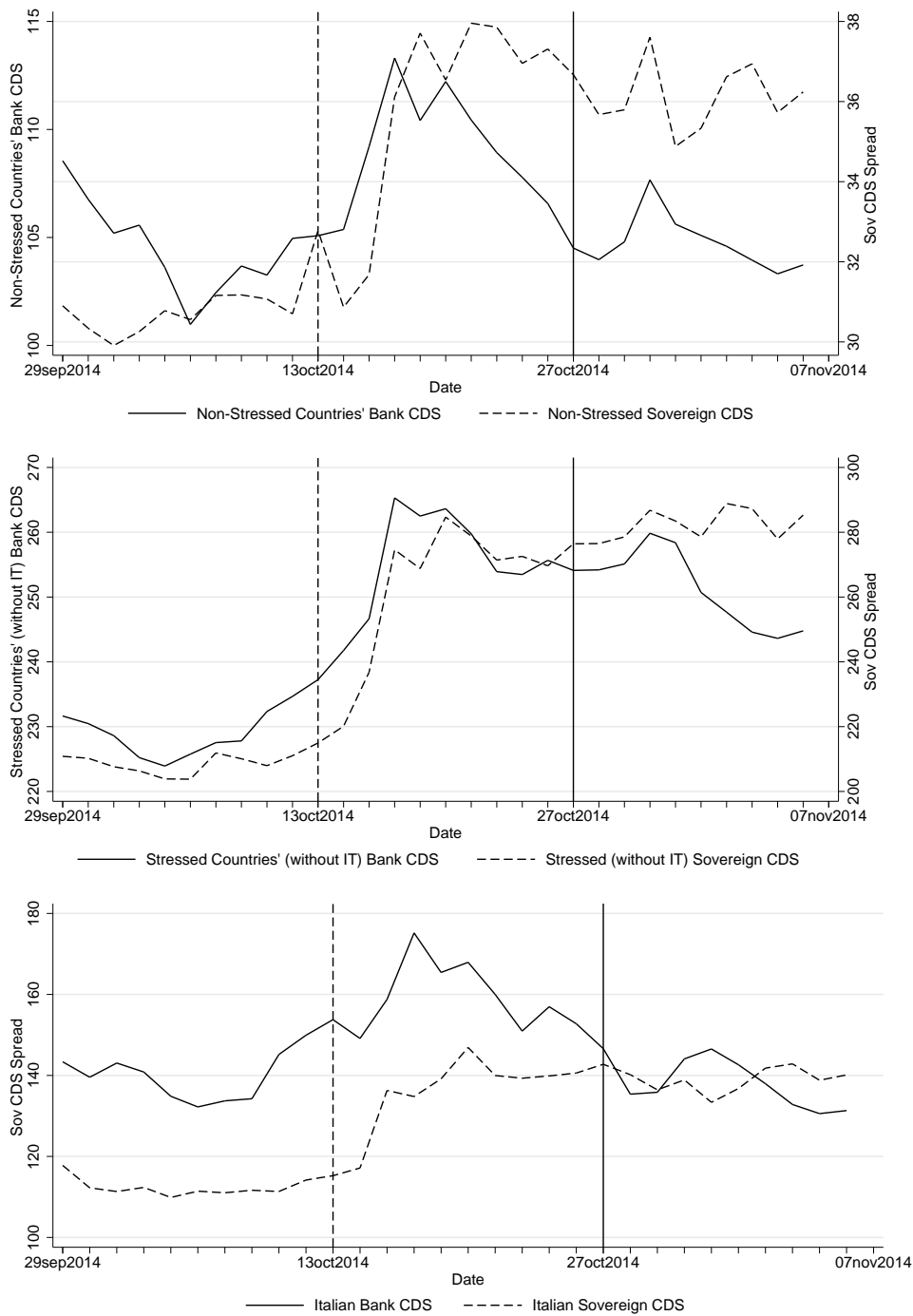
	Pre-CA					Soft Info					Post-CA				
	Mean	5p	95p	Std Dev	N	Mean	5p	95p	Std Dev	N	Mean	5p	95p	Std Dev	N
Bank CDS															
Non-stressed	104.50	48.31	188.26	54.86	270	108.93	52.33	205.31	55.13	265	104.73	52.45	207.40	54.56	260
GIPS	228.80	72.69	390.30	112.25	150	253.99	79.00	469.95	130.67	150	251.30	77.36	489.31	147.17	150
IT	139.70	79.72	238.59	55.71	70	159.09	84.20	273.84	67.42	70	138.38	81.66	250.06	54.62	70
All	147.58	54.03	388.49	94.82	490	161.03	55.81	425.89	108.29	485	155.44	54.22	470.03	114.42	480
Sovereign CDS															
Non-stressed	30.69	18.28	45.99	11.65	50	35.58	19.32	57.31	15.08	50	36.15	19.48	56.69	15.48	50
GIPS	208.38	52.38	539.50	193.15	40	259.25	58.36	730.49	251.84	40	281.97	61.78	757.71	276.97	40
IT	112.33	109.88	117.80	2.22	10	134.93	115.26	146.91	10.37	10	139.21	133.37	142.86	3.03	10
All	109.93	18.38	531.11	147.83	100	134.98	20.03	713.18	190.62	100	144.78	19.94	747.17	209.54	100
Equity															
Non-stressed	-6.5%	-11.2%	-1.4%	3.1%	14	4.9%	-0.2%	10.8%	3.1%	11	-1.2%	-8.4%	2.5%	3.7%	11
GIPS	-7.1%	-19.1%	-0.2%	5.1%	14	3.1%	-12.6%	13.2%	5.9%	14	-10.1%	-19.5%	3.0%	6.4%	14
IT	-3.2%	-8.0%	2.0%	3.4%	11	4.2%	-0.80%	11.07%	3.36%	11	-7.74%	-16.29%	2.97%	5.71%	11
All	-5.7%	-12.7%	1.7%	4.3%	36	4.0%	-1.5%	11.1%	4.4%	36	-6.6%	-18.5%	3.0%	6.6%	36

Appendix B: Unweighted CDS spreads

Figure B.1 plots unweighted averages of CDS spreads (in levels) for banks and sovereigns in the euro area.

Figure B.1: Unweighted averages of bank and sovereign CDS spreads

Unweighted averages of CDS spreads for banks and sovereigns in the euro area from 29 September 2014 to 7 November 2014. Dashed vertical lines mark the start of the Soft Info period, while solid vertical lines mark the Monday close following the disclosure of the CA results. The top panel plots average CDS spread levels for non-stressed countries' banks (solid line, left scale) and sovereigns (dashed line, right scale). The middle and bottom panel refer to GIPS and IT data, respectively.



Appendix C: Extended panel specification

Sovereign-bank risk dependence may not be the same across all stressed countries. For example, banks in Italy were somewhat more affected by the release of information on 26 October 2014; see Figure 2. Again, nine out of 25 banks with a capital shortfall were located there. We may therefore expect the pattern that emerged for stressed countries to be particularly apparent for Italian sovereign-bank pairs. To explore this hypothesis we extend our panel specification (2) by allowing for two cross-sectional dummies, $S_{j(i)}^{IT}$ and $S_{j(i)}^{GIPS}$.

Two cross-sectional dummies effectively distinguish banks in Italy from banks located in other stressed countries. Table C.1 allows for one additional country-group difference, but is otherwise analogous to Table 3 in the main text. Again, we first consider country-group differences within each 10-day period in isolation (Pre-CA, Soft Info, and Post-CA; columns 1–6). We then report time differences in the country-group differences (columns 7–8).

Italian sovereign-bank dependence is insignificant before (column 2 and 4, rows 6+7) and after the announcement of the CA results (column 6, rows 6+7). In the Post-CA period, the sovereign-bank dependence estimates for the GIPS group and Italy are both significantly different from the estimate for non-stressed countries (column 6, rows 7 and 8). The differential effect is more negative for Italian data (-0.35; column 8, row 1) than for the other four stressed countries (-0.20; column 8, row 2).

Table C.1: Changes in within-country risk dependence, extended

Results from country-group difference regressions in columns 1–6 and difference-in-differences regressions in columns 7–8. The regression specifications (1) and (2) are extended to allow for a second cross-sectional difference for Italian sovereign-bank pairs. We therefore distinguish five non-stressed countries from four stressed countries (GIPS: Greece, Ireland, Portugal, and Spain), and Italy (IT). Standard errors are bootstrapped. Each column indicates whether the regression contains time (Time FE) and firm (Firm FE) fixed effects.

Dep. Var.: $\Delta cds_{j^{(i)},t}^s$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pre-CA	Pre-CA	Soft Info	Soft Info	Post-CA	Post-CA	Diff-Diff	Diff-Diff
							(4)-(2)	(6)-(2)
$S_j^{IT} \cdot P_t \cdot \Delta cds_{i,t}^b$							0.107 (0.181)	-0.345*** (0.113)
$S_j^{GIPS} \cdot P_t \cdot \Delta cds_{i,t}^b$							0.577*** (0.125)	-0.195* (0.117)
$P_t \cdot \Delta cds_{i,t}^b$							-0.193 (0.119)	0.278** (0.113)
$S_j^{IT} \cdot P_t$							0.006 (0.009)	-0.002 (0.004)
$S_j^{GIPS} \cdot P_t$							-0.005 (0.006)	-0.003 (0.004)
$\Delta cds_{i,t}^b$							0.024 (0.030)	0.018 (0.030)
$S_j^{IT} \cdot \Delta cds_{i,t}^b$								
$S_j^{GIPS} \cdot \Delta cds_{i,t}^b$								
$S_j^{IT} \cdot P_t \cdot \Delta cds_{i,t}^b$	-0.092 (0.068)	-0.102 (0.066)	-0.159 (0.106)	-0.183* (0.109)	0.300*** (0.094)	0.292*** (0.099)		
$S_j^{GIPS} \cdot P_t \cdot \Delta cds_{i,t}^b$	0.165** (0.072)	0.175** (0.073)	0.097 (0.157)	0.117 (0.157)	-0.340*** (0.096)	-0.340*** (0.099)		
$S_j^{IT} \cdot \Delta cds_{i,t}^b$	0.161* (0.088)	0.159* (0.090)	0.559*** (0.130)	0.571*** (0.124)	-0.219** (0.106)	-0.204** (0.104)		
S_j^{IT}	-0.000 (0.003)		0.006 (0.008)		-0.002 (0.003)			
S_j^{GIPS}	0.007** (0.003)		0.003 (0.004)		0.005 (0.003)			
Observations	480	480	480	480	480	480	960	960
R-squared	0.2577	0.2733	0.4433	0.4548	0.5359	0.5510	0.4230	0.4472
Bank FE	NO	YES	NO	YES	NO	YES	YES	YES
daily Time FE	YES	YES	YES	YES	YES	YES	YES	YES
Bootstrapped SE	YES	YES	YES	YES	YES	YES	YES	YES

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1