

A Appendix

INTERNET APPENDIX

Back to the Roots of Internal Credit Risk Models: Does Risk Explain Why Banks' Risk-Weighted Asset Levels Converge over Time?

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Guide to the Internet Appendix

This Internet Appendix includes additional information, complementing the research paper “Back to the Roots of Internal Credit Risk Models: Does Risk Explain Why Banks’ Risk-Weighted Asset Levels Converge over Time?” regarding the following seven sections:

A.1 Supplementary figures

Figures [A.1](#) and [A.2](#) illustrate the quarterly mean risk-weighted asset (RWA) density before and after IRB approval and the banks’ loan portfolio composition across country groups. Figure [A.3](#) presents the annual mean RWA density for banks using the standardized approach. For banks using the internal ratings-based (IRB) approach, Figures [A.4](#) and [A.5](#) provide the evolution of RWA densities for the 52 banks in our sample. Figure [A.6](#) illustrates the mean and the standard deviation of all banks’ RWA densities over time. Figures [A.7](#) and [A.9](#) present the development across countries and over time of quarterly mean sizes and loan shares, and of the sovereign credit-default swap spreads, respectively. Figures [A.8](#) and [A.10](#) illustrate the RWAD development across country groups.

A.2 Stylized facts of RWA densities in banks

This section provides stylized facts of RWA densities in banks, supplementing Section 2 in the main body of the text. This also includes Figure [A.11](#), illustrating the development of the quarterly mean capital adequacy ratio across countries and over time.

A.3 Details on events in the European banking sector

Table [A.1](#) provides an overview on the timeline of relevant events in the European banking sector.

A.4 Sample description

Table [A.2](#) provides descriptive statistics of all banks one quarter before IRB adoption. Table [A.3](#) reports descriptive statistics for the RWA densities across years. Tables [A.4](#) and [A.5](#) provide an overview of the basic data and list all banks in our sample together with their IRB adoption date. Table [A.6](#) presents the distribution by country. Tables [A.7](#) and [A.8](#) provide the variable descriptions for the cross-sectional and the panel data set, respectively. Tables [A.9](#) and [A.10](#) report summary statistics for the cross-sectional and the panel data set, respectively. Pearson’s correlation coefficients are shown in Tables [A.11](#), [A.12](#), and [A.13](#), respectively. Table [A.14](#) presents summary statistics for the RWA densities over time for each country group.

A.5 Details on the indices suggested by Barth et al. (2013)

Tables [A.15](#) and [A.16](#) summarize the questions of the World Bank’s Bank Regulation and Supervision Survey used to calculate the capital regulatory index and the supervisory power index as suggested by [Barth et al. \(2013\)](#).

A.6 Convergence tests

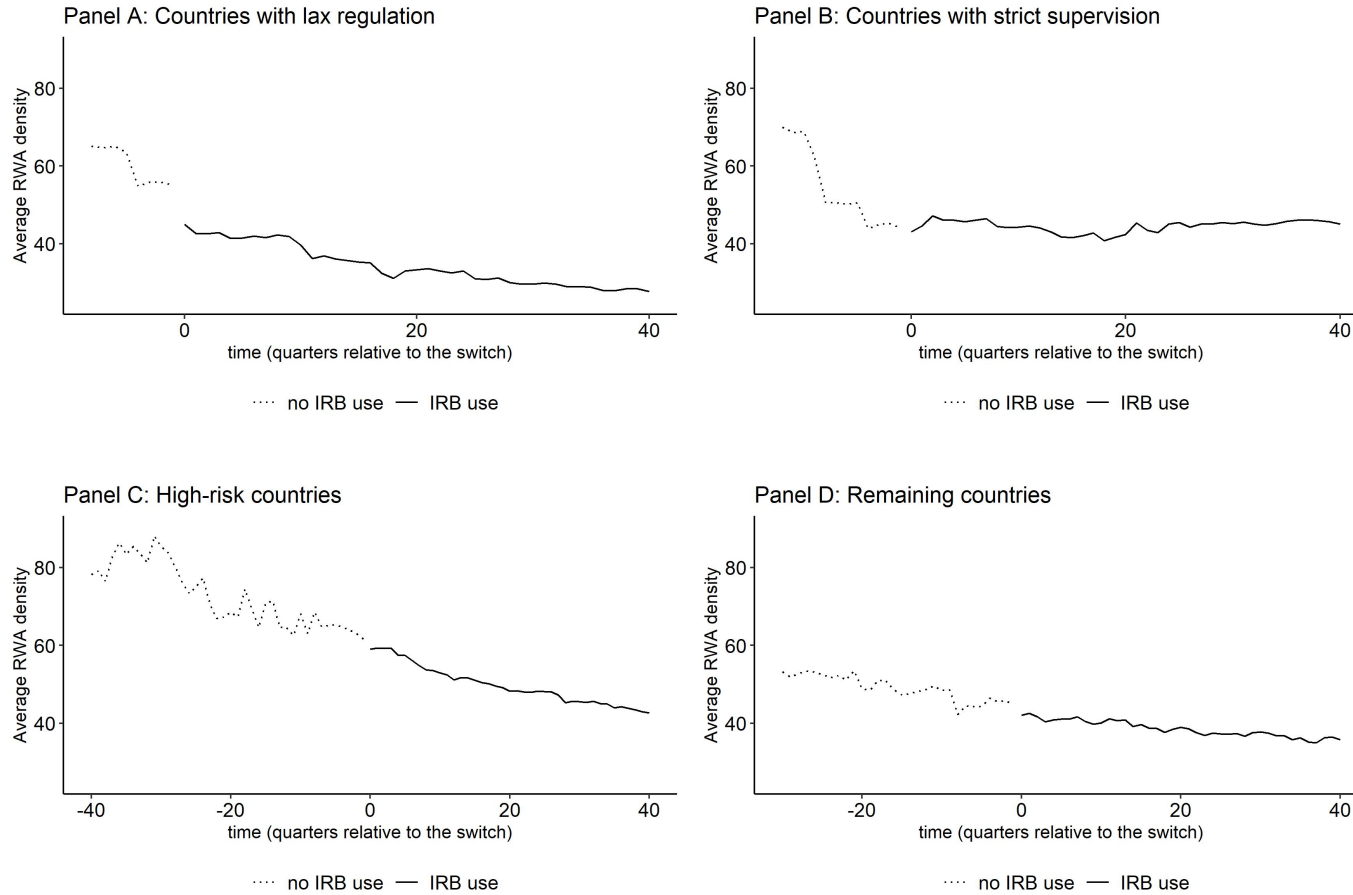
Tables [A.17](#) and [A.18](#) present an overview of the country $\times$ quarter-fixed effects coefficients' significance. Table [A.19](#) reports the regression results of the corresponding panel analysis.

A.7 Robustness tests

Tables [A.20](#) to [A.26](#) present the results of the robustness checks with respect to the cross-sectional analysis. Tables [A.27](#) to [A.33](#) report the robustness tests of the panel analysis.

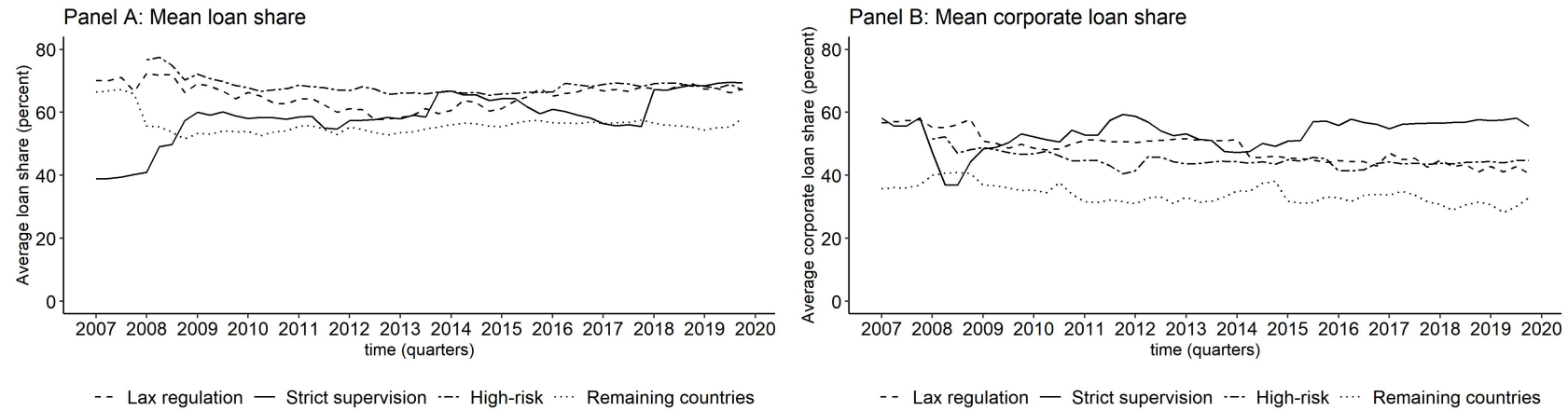
A.1 Supplementary figures

Figure A.1: Bank average risk-weighted asset densities before and after IRB approval across country groups.



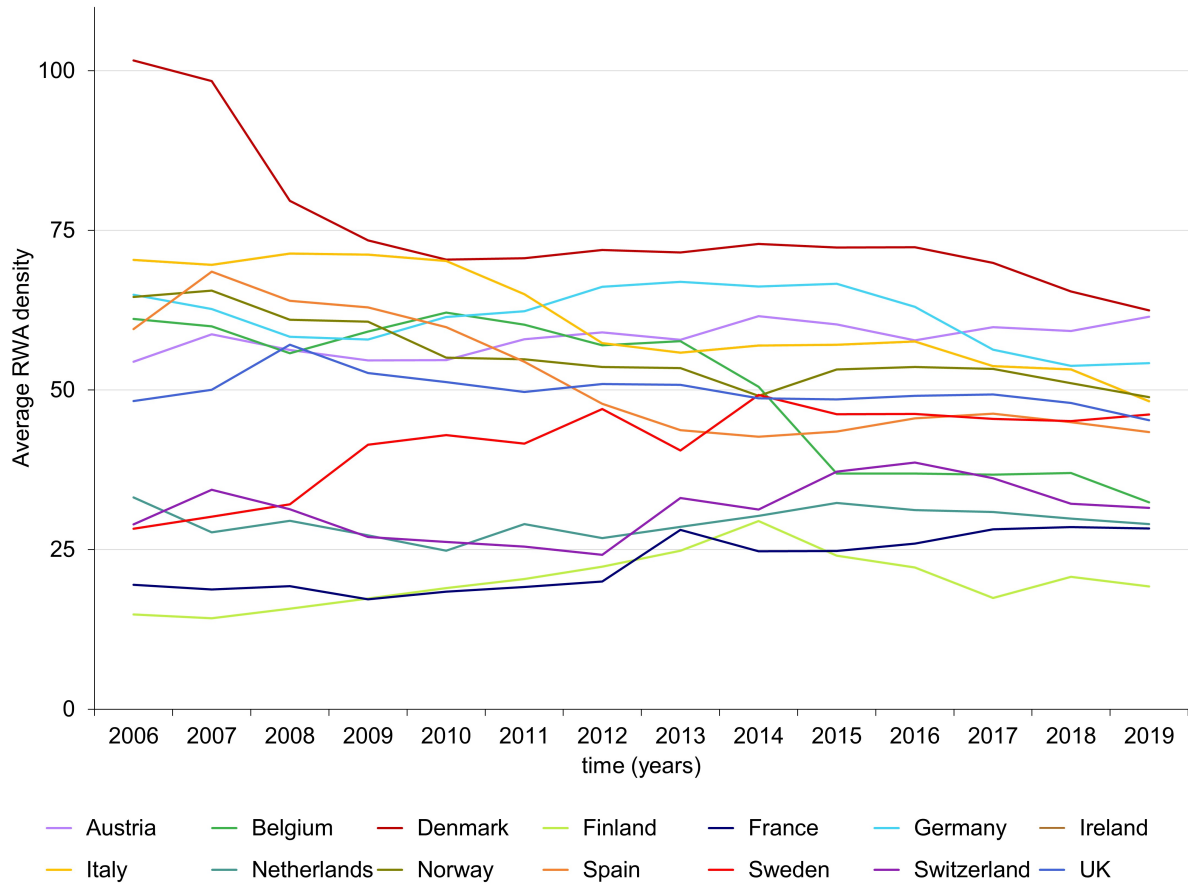
Notes: This figure illustrates the development of the quarterly mean risk-weighted asset (RWA) density relative to the quarter of approval $s = 0$. Panel A to D show the development for subgroups of countries classified as countries with less strict regulation, countries with strict supervision as well as high-risk, and the remaining countries.

Figure A.2: Banks' loan portfolio composition across country groups.



Notes: This figure illustrates the development of banks' asset composition over time. Panel A shows the development of banks' quarterly average loan share over time. Panel B focuses on the corporate loan share. "Lax regulation" and "Strict supervision" summarize countries with less strict regulation and strict supervision, respectively. "High-risk" refers to high-risk countries, and the remaining countries are classified as "Remaining countries".

Figure A.3: Country average risk-weighted asset density of banks using the standardized approach over time.



Notes: This figure illustrates the development of the country annual mean of risk-weighted asset (RWA) densities for banks using the standardized approach. In contrast to banks that use the internal ratings-based (IRB) approach, average RWA densities of banks using the standardized approach remain on a similar level over time in all countries. Solely the average RWA density of Danish banks was on a higher level at the beginning of our sample period, since Denmark had a unique way to introduce the Second Basel Accord ([Imbierowicz, Kragh, and Rangvid, 2018](#)). A detailed analysis of the RWA density of banks that use the standardized approach is beyond the scope of this study.

Figure A.4: Development of banks' risk-weighted asset densities over time (Part 1).

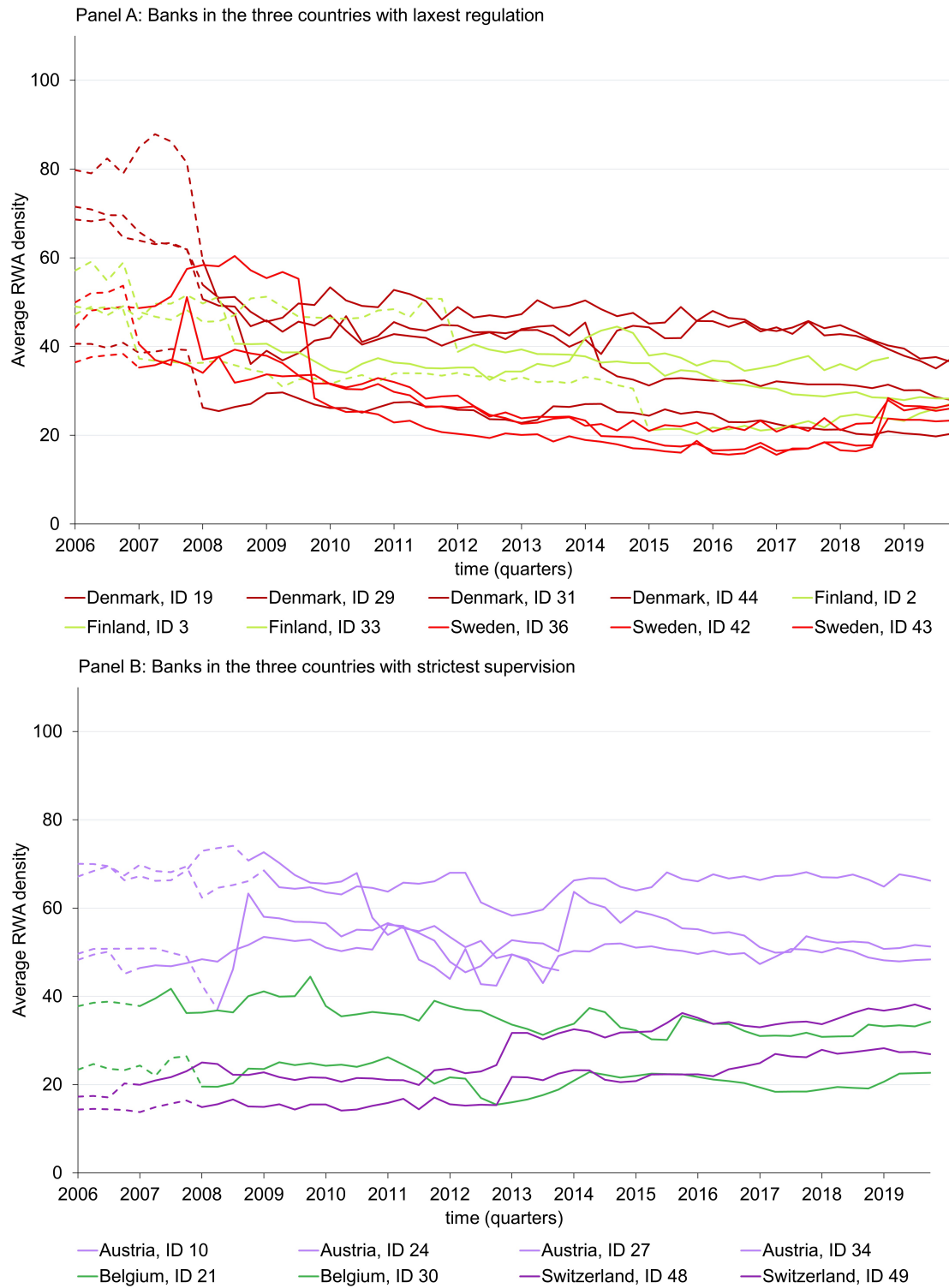


Figure A.5: Development of banks' risk-weighted asset densities over time (Part 2).

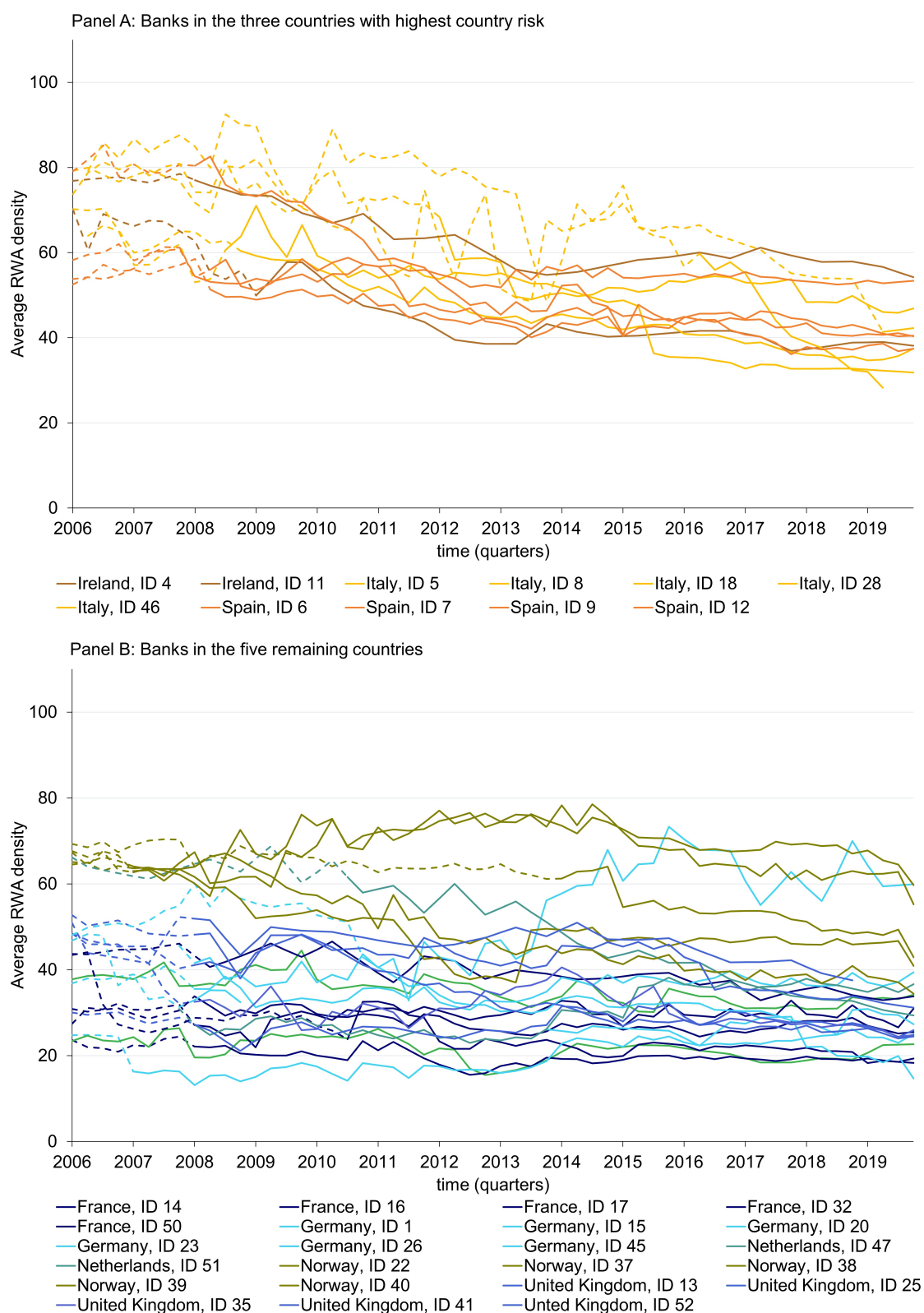
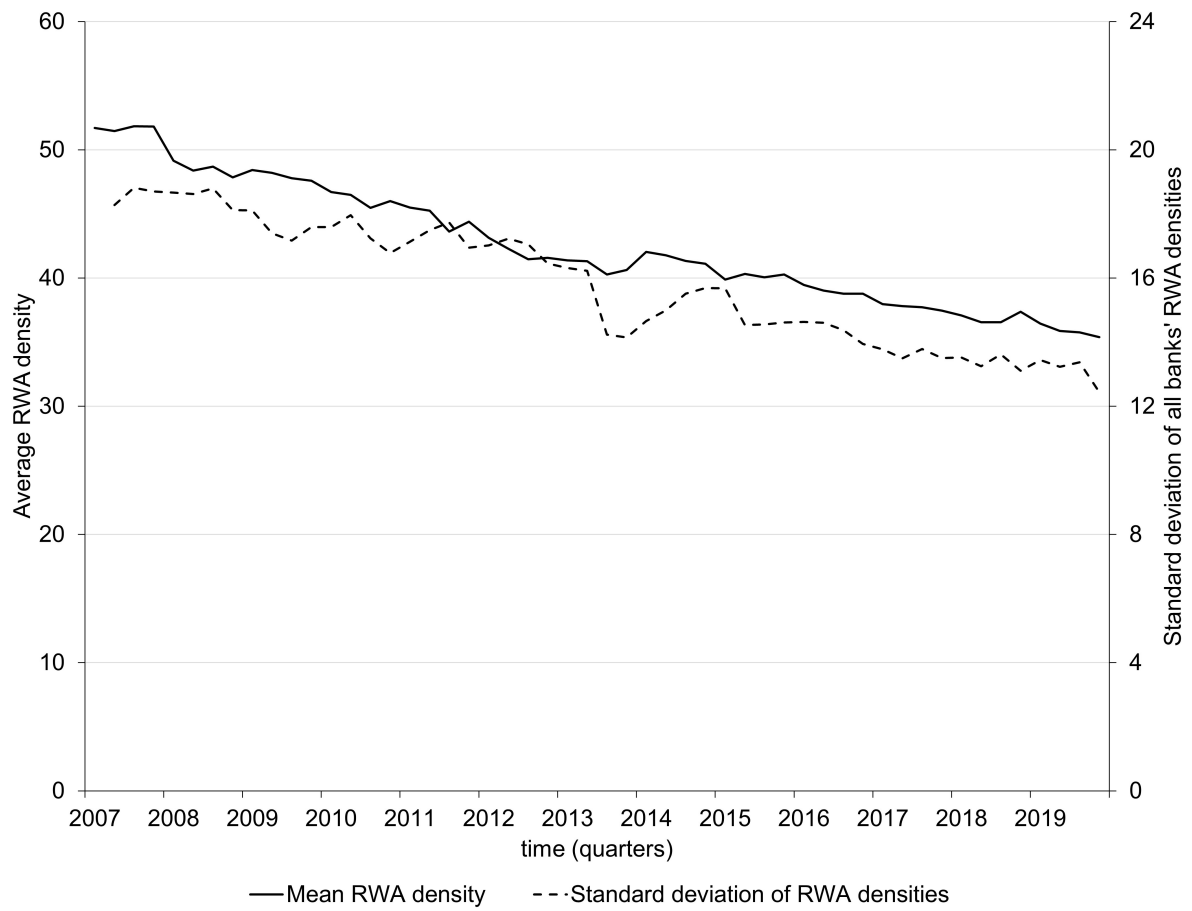
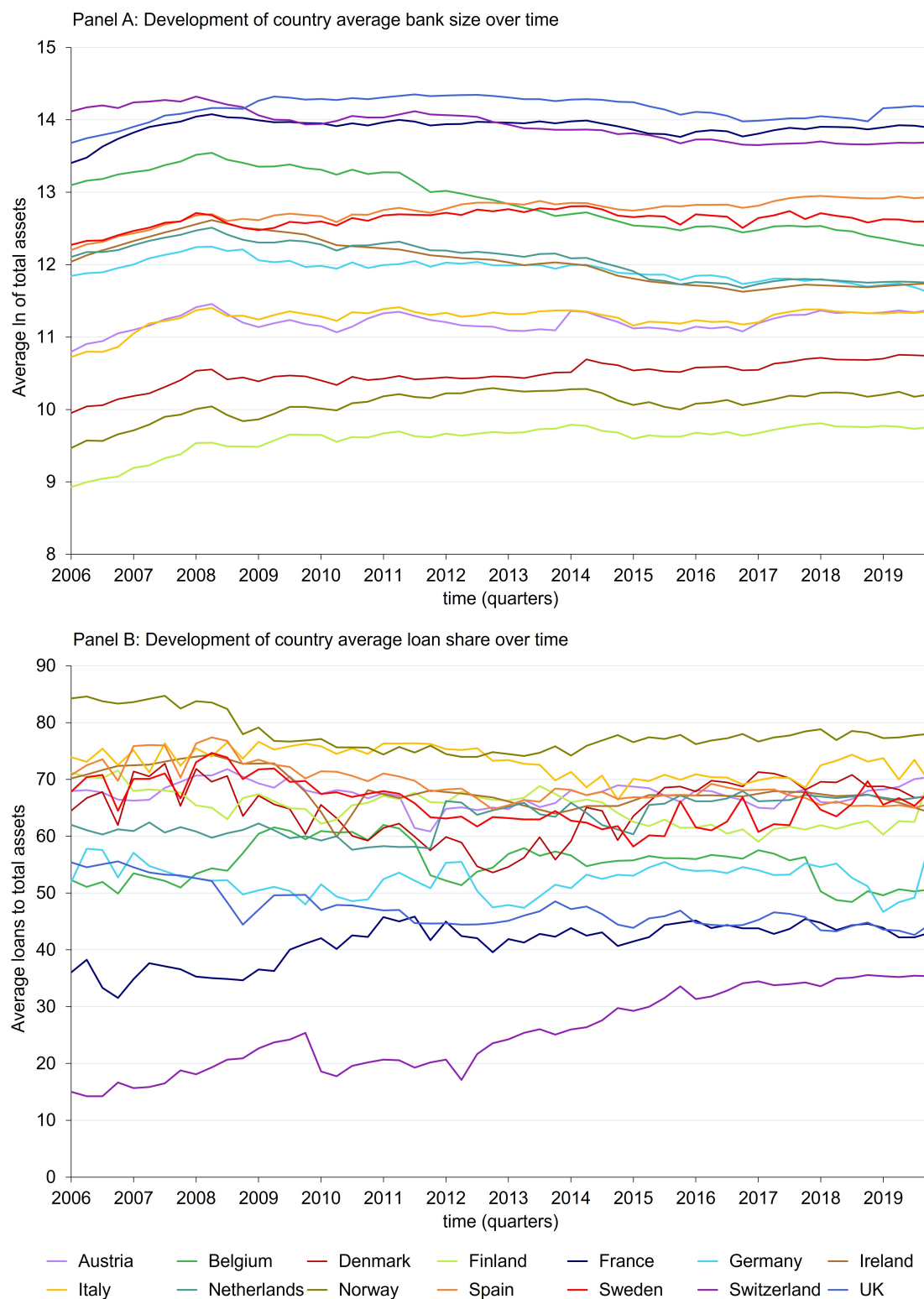


Figure A.6: Mean and standard deviation of all banks' risk-weighted asset density.



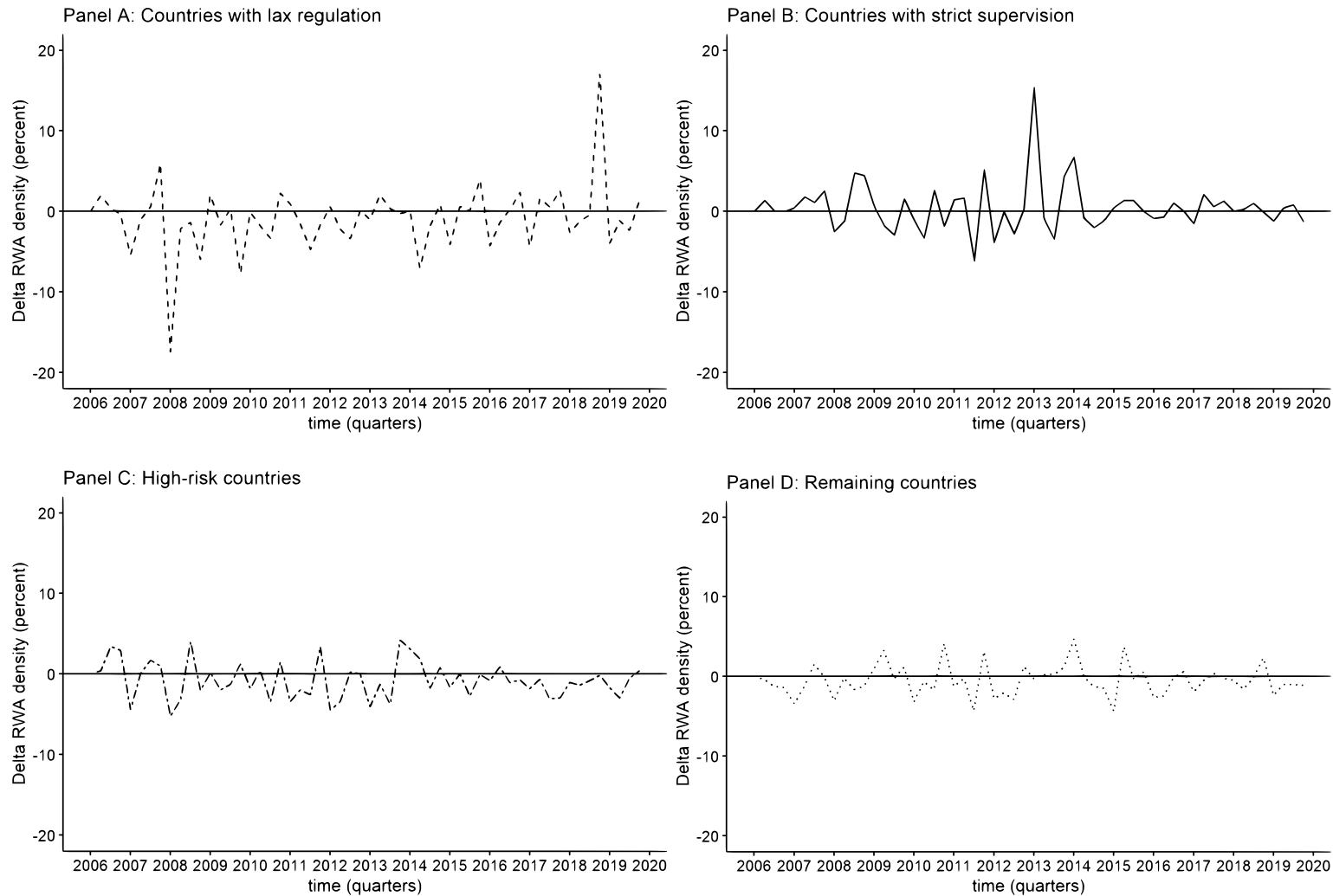
Notes: This figure illustrates the development of the mean and the standard deviation of risk-weighted asset (RWA) densities for banks using the internal ratings-based (IRB) approach over time.

Figure A.7: Development of banks' sizes and loan shares.



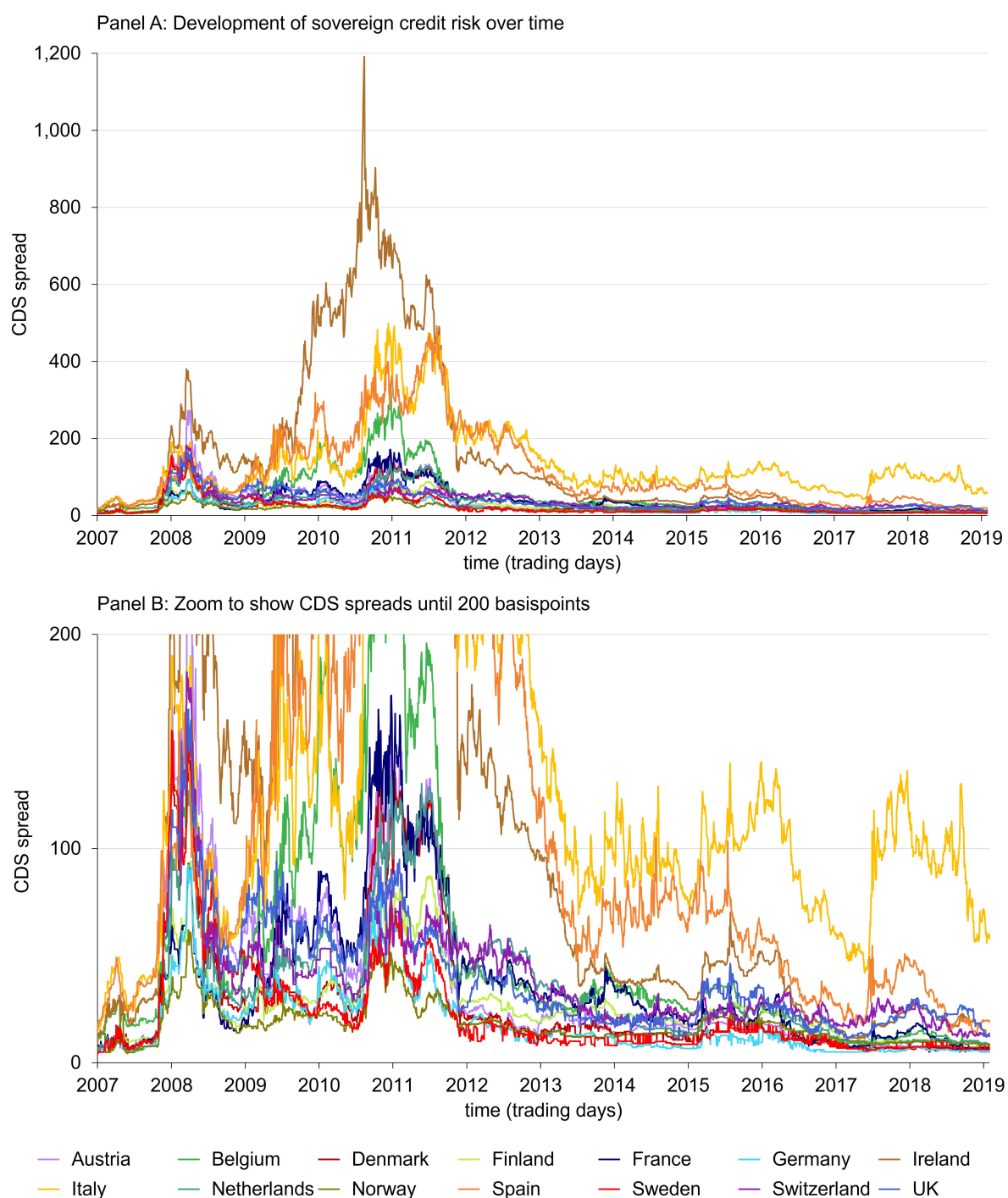
Notes: This figure illustrates the development of the country quarterly mean of internal ratings-based (IRB) approach banks' key variables. Panel A shows the evolution of the natural logarithm of banks' total assets and Panel B the banks' loans to total assets ratio.

Figure A.8: Development of banks' change in risk-weighted asset densities over time.



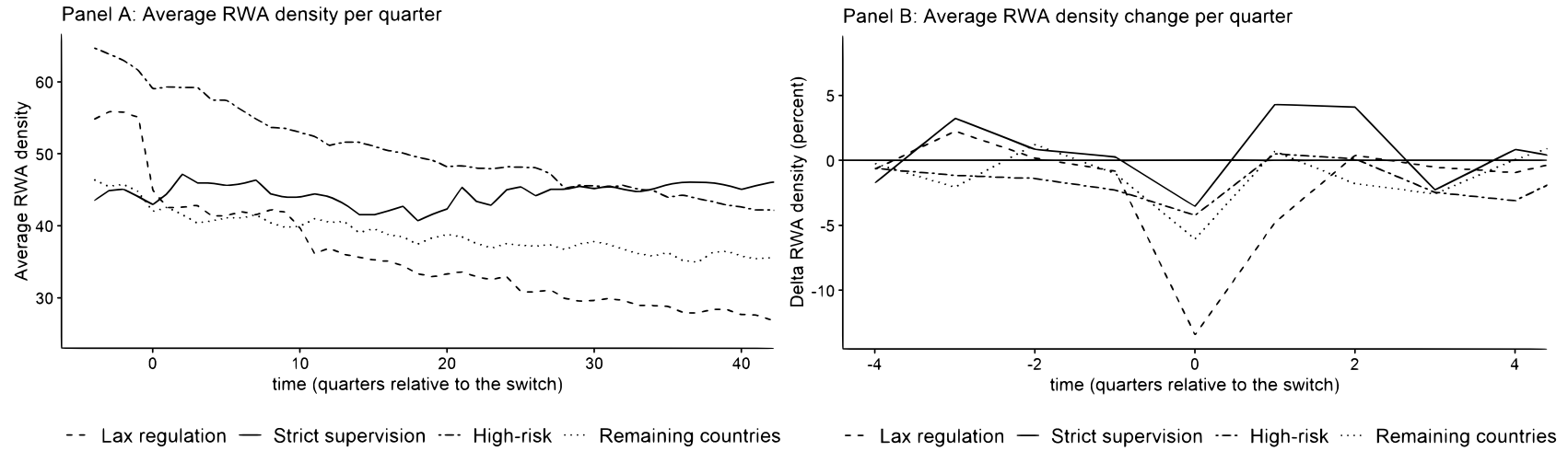
Notes: This figure illustrates the change in risk-weighted asset (RWA) densities across quarters. Panel A to D show the development for subgroups of countries classified as countries with less strict regulation, countries with strict supervision as well as high-risk, and the remaining countries.

Figure A.9: Sovereign credit risk by country.



Notes: This figure illustrates the development of the 5-year sovereign credit-default swap (CDS) spreads across countries and over time (Source: Refinitiv Datastream).

Figure A.10: Banks' risk-weighted asset density across country groups.



Notes: This figure illustrates the development pattern of banks' risk-weighted asset (RWA) density relative to the quarter of approval $s = 0$. Panel A shows the development of the quarterly average RWA density over time. Panel B focuses on the four quarters before and after the quarter of approval illustrating the quarterly RWA density change (in percent). "Lax regulation" and "Strict supervision" summarize countries with less strict regulation and strict supervision, respectively. "High-risk" refers to high-risk countries, and the remaining countries are classified as "Remaining countries".

A.2 Stylized facts of RWA densities in banks

In the regulatory frame of Basel II, the IRB approach allows banks to rely on their internal estimates of relevant credit risk parameters for calculating their regulatory capital requirements (BCBS, 2004). During the 2008 financial crisis, the weaknesses in the banking sector were rapidly transmitted to the rest of the financial system and the real economy, resulting in a contraction of credit available. Thus, after the financial crisis, regulators keep increasing requirements regarding the minimum capital ratio to further ensure the resilience of banks and the stability of the banking sector (e.g., BCBS, 2011; EU, 2013; BCBS, 2017).

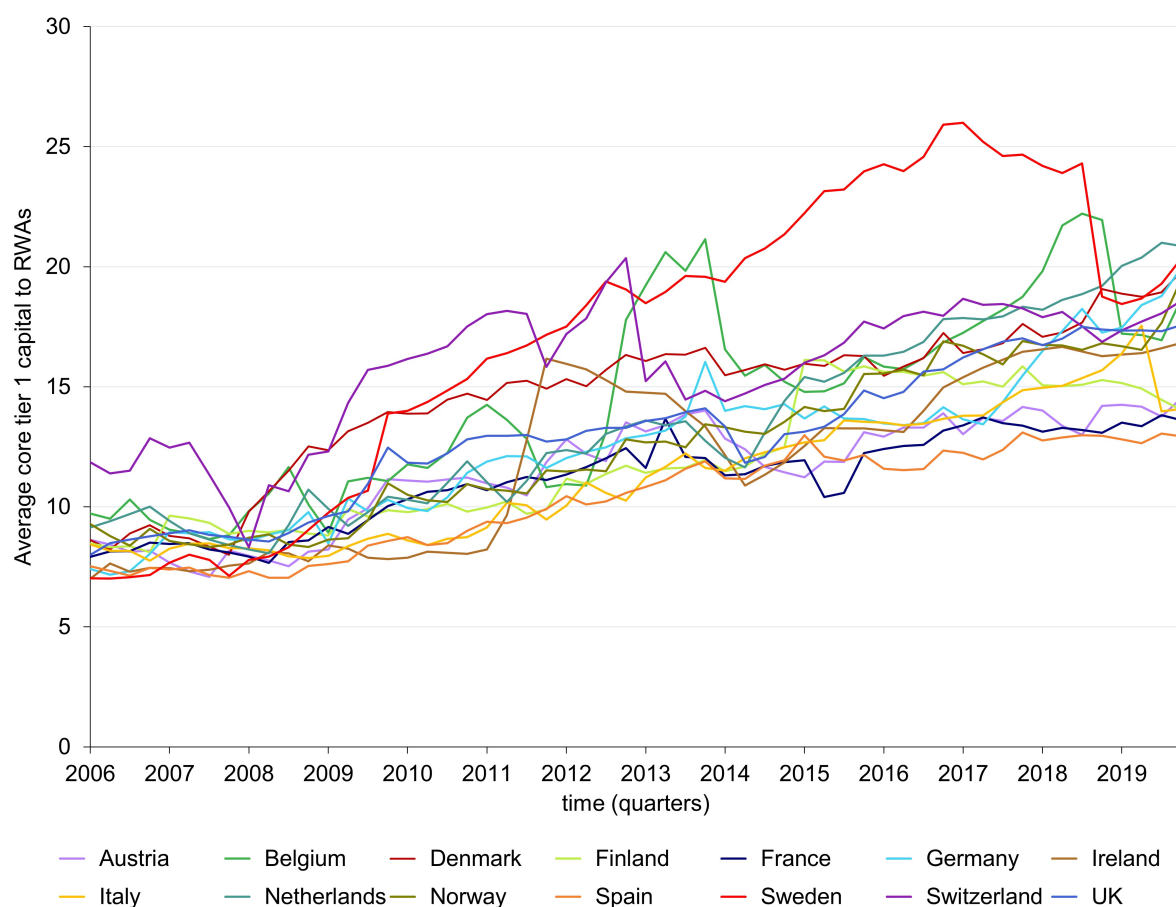
The regulatory authorities focus on the capital adequacy ratio, calculated as regulatory core tier 1 capital to RWAs. First, the regulatory frame of Basel II, especially the introduction of internal models, increased the risk-sensitivity of the denominator. Second, focusing on the amount and the quality of regulatory capital, Basel III addresses the numerator of banks' capital adequacy ratio. As a result, the pressure to increase the numerator to meet the increasing minimum capital requirements, created incentives to reduce the denominator, namely the RWAs (Gropp et al., 2019). Banks may reduce their RWAs in a “good” way where they use risk-mitigating techniques and change their asset composition or business model to reduce actual economic risk. Alternatively, a “bad” way to reduce RWAs would involve regulatory arbitrage where RWAs do not quantify precisely the banks' economic risk position.

As the RWA density and capital adequacy are closely connected, it is important to additionally take into account the banks' capital adequacy ratio. Another way to capture a bank's regulatory risk would be to require a high capital adequacy ratio. An increase in banks' minimum capital requirements may compensate decreasing RWA densities as observed in high-risk countries. Figure A.11 illustrates the evolution of the countries' quarterly mean capital adequacy ratio over time. As expected, capital adequacy ratios gradually increase, responding to the increasing minimum capital requirements implemented by the regulatory authorities. The development of the average across Belgian and Swiss banks for instance shows how the capital adequacy ratio depends on changing minimum capital requirements and how banks manage their capital adequacy ratios over time. The example of Belgium demonstrates that banks usually only have a high solvency for a couple of quarters before they adjust to meet their own target capital ratios. In the case of the Swedish banks strict regulation of liquidity risks may explain why the average capital adequacy ratio remains on a high level. Motivated by the perceived higher liquidity risk of Swedish banks from a combination of a large maturity mismatch, and a large dependence on liquidity in foreign currencies, Swedish authorities have implemented stricter liquidity measures than most other countries (Elliot and Lindblom, 2016; Petterson, 2016).

For banks under ECB supervision, Pillar II requirements may influence these banks' RWA densities. However, the process builds on the banks' internal estimates, and according to Lubberink (2020) such buffers are associated with a reduction of the banks' internal buffers. Hence, these measures can reduce but not eliminate the effect gained from reduction in RWA densities.

Moreover, even though gradual changes in regulatory requirements after the 2008 financial crisis have increased transparency, the global banking sector is still highly dependent on a few large banks. These banks still hold significant proportions of non-performing

Figure A.11: Country average capital adequacy ratio of banks using the internal ratings-based approach over time.



Notes: This figure illustrates the development of the country quarterly mean of internal ratings-based (IRB) approach banks' core tier 1 capital to risk-weighted assets (RWAs).

loans. A new risk factor is the sectors' low profitability that both limits regulators' ability to implement risk reducing regulations, and reduces the banks' ability to absorb losses (Bell and Hindmoor, 2018).

A.3 Details on events in the European banking sector

Table A.1: Timeline of relevant events in the European banking sector.

Time Period	Event	Affected Countries	Description	Reference
2007 Q1	Adoption of the IRB approach becomes possible	Austria, Belgium, Germany, Norway, Sweden, Switzerland	First bank(s) switch to IRB approach	Annual & disclosure reports
2007 Q4 – 2009 Q2	Macroeconomic shock: Financial crisis	All countries	Worldwide financial crisis causing a severe economic downturn	-
2008 Q1	Adoption of the IRB approach becomes possible	Denmark, France, Ireland, Netherlands, Spain, UK	First bank(s) switch to IRB approach	Annual & disclosure reports
2008 Q3	Adoption of the IRB approach becomes possible	Finland, Italy	First bank(s) switch to IRB approach	Annual & disclosure reports
2009 Q1 – 2012 Q4	Regulation change: Implementation of new requirements	Switzerland	Higher capital requirements for the two large Swiss banks (to be implemented until 2013)	Swiss Bankers Association (2009)
2009 Q3 – 2013 Q1	Macroeconomic shock: Sovereign debt crisis	Ireland, Italy, Spain (high-risk countries)	Crisis related to high government debt and collapsing financial institutions	-
2010 Q4 – 2011 Q4	Regulation change: Introduction of the Third Basel Accord	All countries	Higher capital requirements, banks anticipate introduction in their country	Basel Committee on Banking Supervision (BCBS) (2011)
until 2014 Q1	Regulation change: Implementation of CRD IV	Euro countries	Higher capital requirements, implementation of the Third Basel Accord in the EU (to be implemented until Dec 31, 2013)	European Union (EU) (2013)
launched 2016 Q1	Targeted review of internal models (TRIM)	Euro countries	Assessment of internal models used by banks under direct ECB supervision	European Central Bank (ECB) (2021)
since 2016 Q3	Macroeconomic shock: “Brexit”	UK	Process of leaving the EU after referendum in June 2016	-
2018 Q1	Regulation change: Introduction of IFRS 9	All countries	Change of the International Financial Reporting Standard (IFRS) regarding financial instruments	International Accounting Standards Board
2018 Q4	Regulation change: Introduction of risk weight floor	Sweden	Implementation of an average institution-specific risk weight floor for Swedish mortgage exposures for credit institution with approval to use an internal credit risk model	Finansinspektionen Sweden (2018)
2019 Q4	Regulation change: Implementation of CRD IV	Norway	Removal of Basel I floor, introduction of a floor on mortgages for two years, and announcement to increase systemic risk buffer by 1.5 ppt from end 2020	Ministry of Finance Norway (2019)

This table provides an overview of macroeconomic shocks and regulation changes, representing relevant events in the European banking sector during our sample period. “IRB” refers to the internal ratings-based (IRB) approach. “CRD” abbreviates Capital Requirements Directive.

A.4 Sample description

Table A.2: Descriptive statistics of all banks one quarter before IRB adoption.

Variable	N	Mean	SD	Min	p25	Median	p75	Max
<i>Dependent variables</i>								
$\Delta RWAD_{i,j}^{s-1}$	52	-1.094	5.498	-13.286	-4.277	-0.436	1.789	18.507
<i>Explanatory variables</i>								
$LAX_REGULATION_j^{s-1}$	52	0.135	0.345	0	0	0	0	1
$REGULATION_INDEX_j^{s-1}$	52	5.010	1.855	3.000	3.857	4.500	6.290	9.000
$STRICT_SUPERVISION_j^{s-1}$	52	0.115	0.323	0	0	0	0	1
$SUPERVISION_INDEX_j^{s-1}$	52	9.651	2.044	5.000	8.000	9.000	10.386	14.000
$HIGH_RISK_j^{s-1}$	52	0.212	0.412	0	0	0	0	1
$CDS_SOVEREIGN_j^{s-1}$	52	2.804	1.121	0.993	1.988	2.536	3.645	5.716
$\Delta LOANS_{i,j}^{s-1}$	52	2.359	8.332	-16.746	-2.721	1.168	6.505	28.799
$\Delta LLR_{i,j}^{s-1}$	48	0.009	0.105	-0.200	-0.015	-0.006	0.004	0.457
$\Delta RETURN_ON_RWA_{i,j}^{s-1}$	50	-0.007	0.382	-1.402	-0.112	-0.012	0.100	1.313
$\Delta EQUITY_{i,j}^{s-1}$	52	0.033	0.283	-0.757	-0.121	0.046	0.146	0.754
$SIZE_{i,j}^{s-1}$	52	12.042	1.967	7.407	10.568	12.426	13.693	14.861
$DOMESTIC_CREDIT_j^{s-1}$	52	106.800	34.575	64.900	84.500	91.300	114.100	182.500
$\Delta GDP_{i,j}^{s-1}$	52	0.522	1.110	-3.785	0.259	0.576	1.006	4.355

This table provides descriptive statistics for the panel variables at the quarter before the switch. N refers to the number of observations. “Mean” (“SD”) describes the mean (standard deviation) of each variable across all observations, respectively. “p25” (“p75”) refers to the 25th (75th) percentile of the distribution of each variable. Variable descriptions of the panel variables are provided in Table A.8 in the Internet Appendix. The variable descriptions in this table include the superscript $s - 1$ as they provide the information of the quarter before the switch s . Due to limited data availability, information on banks’ loan loss reserves to total assets (the return on risk-weighted assets) at the quarter before the switch $\Delta LLR_{i,j}^{s-1}$ ($\Delta RETURN_ON_RWA_{i,j}^{s-1}$) is only available for 48 (50) banks.

Table A.3: Risk-weighted asset density per year.

Year	N	Mean	SD	Median	Min	Max
<i>2007</i>	44	49.77	18.14	51.38	16.31	81.40
<i>2008</i>	183	47.41	18.61	48.43	13.16	105.54
<i>2009</i>	193	47.47	17.61	48.10	14.36	94.91
<i>2010</i>	192	46.18	17.57	47.28	14.13	89.60
<i>2011</i>	188	45.11	17.52	45.37	14.41	97.22
<i>2012</i>	185	42.24	17.27	42.45	15.29	87.51
<i>2013</i>	191	41.08	15.52	41.88	15.98	88.27
<i>2014</i>	188	41.87	15.51	42.40	17.06	78.56
<i>2015</i>	187	40.14	14.55	40.38	16.01	73.33
<i>2016</i>	186	39.27	14.42	37.65	15.67	70.39
<i>2017</i>	182	38.12	13.87	35.82	15.64	69.86
<i>2018</i>	160	36.38	13.77	33.80	16.42	70.01
<i>2019</i>	152	35.83	13.17	32.99	14.69	67.81
Total	2,231	42.10	16.44	40.68	13.16	105.54

This table provides descriptive statistics for the risk-weighted asset (RWA) density across years. N refers to the number of observations. “Mean” (“SD”) describes the mean (standard deviation) of the variable across observations, respectively.

Table A.4: Data overview.

Key data	Definition
Risk-weighted assets	Bank i 's assets and off-balance sheet exposures calculated based on regulatory risk assessment which are used to determine the bank's minimum capital requirements
IRB approach approval date	Date where bank i obtains the supervisor's approval and is allowed to officially use the internal ratings-based (IRB) approach
IRB approach coverage	The share of a bank i 's risk-weighted assets that are calculated using the internal ratings-based (IRB) approach
Bank CDS spreads	Bank i 's 5-year sovereign credit default swap (CDS) spreads
Other bank-specific data	Information on bank i 's total assets, equity, net income, net loans, and loan-loss reserves
Sovereign CDS spreads	Country j 's 5-year sovereign credit default swap (CDS) spreads
Other country-specific data	Information on country j 's real GDP growth and credit to private non-financial sector from banks in percent of GDP
Regulatory stringency	Index describing country j 's regulatory stringency ranging from 0 to 10 where higher values indicate greater regulatory stringency
Supervisory power	Index describing country j 's supervisory power ranging from 0 to 14 where higher values indicate greater supervisory power

This table provides an overview of the basic data as detailed in Section 3.1 that are used to calculate the variables described in Tables A.7 and A.8.

Table A.5: List of all banks and their IRB adoption date.

ID	Bank name	Country	IRB adoption date
1	Bank für Tirol und Vorarlberg AG	Austria	01.01.2009
2	Erste Group Bank AG	Austria	01.01.2007
3	Immigon Portfolioabbau AG	Austria	01.04.2008
4	Raiffeisen Bank International AG	Austria	01.12.2008
5	Dexia SA	Belgium	01.01.2008
6	KBC Group	Belgium	01.01.2007
7	Danske Bank A/S	Denmark	01.01.2008
8	Jyske Bank Group	Denmark	01.01.2008
9	Laan & Spar Bank A/S	Denmark	01.01.2008
10	Sydbank A/S	Denmark	01.01.2008
11	Aktia Bank Plc	Finland	31.03.2015
12	Ålandsbanken Abp-Bank of Åland Plc	Finland	31.03.2012
13	OP Corporate Bank plc	Finland	30.09.2008
14	BNP Paribas	France	01.01.2008
15	Credit Agricole SA	France	01.01.2008
16	Credit Industriel et Commercial SA	France	30.06.2008
17	Natixis SA	France	30.09.2010
18	Societe Generale SA	France	01.01.2008
19	Aareal Bank AG	Germany	31.12.2010
20	Commerzbank AG	Germany	01.01.2008
21	Deutsche Bank AG	Germany	01.01.2007
22	DVB Bank SE	Germany	01.01.2008
23	HSBC Trinkaus & Burkhardt AG	Germany	01.01.2008
24	HVB UniCredit AG	Germany	01.01.2008
25	Allied Irish Banks plc	Ireland	01.01.2008
26	Bank of Ireland Group plc	Ireland	31.03.2009
27	Banca Popolare di Sondrio	Italy	30.06.2019
28	Banco di Sardegna SpA	Italy	30.06.2016
29	Credito Emiliano SpA	Italy	01.07.2008
30	Intesa Sanpaolo	Italy	31.12.2008
31	UBI Banca	Italy	30.06.2012
32	Van Lanschot NV	Netherlands	01.07.2010
33	ING Group	Netherlands	01.01.2008
34	DnB ASA	Norway	01.01.2007
35	Sparebank 1 Nord-Norge	Norway	01.01.2007
36	SpareBank 1 SMN	Norway	01.01.2007
37	Sparebanken More	Norway	01.01.2014
38	Sparebanken Vest	Norway	01.01.2007
39	Banco Bilbao Vizcaya Argentaria SA	Spain	01.01.2008
40	Banco de Sabadell SA	Spain	01.01.2008
41	Banco Santander SA	Spain	01.06.2008
42	Bankinter SA	Spain	17.06.2008
43	Skandinaviska Enskilda Banken AB	Sweden	01.02.2007
44	Svenska Handelsbanken	Sweden	01.01.2007
45	Swedbank AB	Sweden	01.03.2007
46	UBS Group AG	Switzerland	01.01.2008
47	Credit Suisse Group AG	Switzerland	01.01.2007
48	Barclays Plc	UK	01.01.2008
49	HSBC Holdings Plc	UK	01.01.2008
50	Royal Bank of Scotland Group Plc	UK	01.01.2008
51	Standard Chartered Plc	UK	01.01.2008
52	Lloyds Banking Group plc	UK	01.01.2008

Table A.6: Sample across countries.

Country	Number of banks	Number of observations	% of total assets in the sample
<i>Austria</i>	4	164	0.15
<i>Belgium</i>	2	54	0.18
<i>Denmark</i>	4	188	6.38
<i>Finland</i>	3	92	13.51
<i>France</i>	5	245	18.19
<i>Germany</i>	6	228	7.24
<i>Ireland</i>	2	98	0.09
<i>Italy</i>	5	165	0.12
<i>Netherlands</i>	2	70	1.40
<i>Norway</i>	5	245	21.47
<i>Spain</i>	4	196	4.71
<i>Sweden</i>	3	147	0.20
<i>Switzerland</i>	2	98	4.25
<i>UK</i>	5	241	22.09
Total	52	2,231	100.00

This table presents the sample distribution by country. With a maximum of 52 quarters, a balanced panel would comprise 2,704 observations. Due to limited data availability and banks' merger activity, our final data set contains 2,395 bank-quarter observations.

Table A.7: Descriptions of the cross-sectional variables.

Variable	Description	Source
<i>Cross-section: dependent variables</i>		
$\Delta RWAD_{i,j}^s$	Change in bank i's risk-weighted assets to total assets from the quarter before the switch to the quarter of the switch s in percent	Refinitiv Datastream
$\varnothing \Delta RWAD_{i,j}^{s+r}$	Average change in bank i's risk-weighted assets to total assets across r quarters after the quarter of switch s in percent	Refinitiv Datastream
<i>Cross-section: independent variables</i>		
$LAX_REGULATION_j$	Indicator equal to 1 if country j is classified as country with less strict regulation and 0 otherwise (i.e., Denmark and Sweden)	World Bank
$REGULATION_INDEX_j$	Country j's inverted regulatory stringency index	World Bank
$STRICT_SUPERVISION_j$	Indicator equal to 1 if country j is classified as country with strict supervision and 0 otherwise (i.e., Austria and Switzerland)	World Bank
$SUPERVISION_INDEX_j$	Country j's supervisory power index	World Bank
$HIGH_RISK_j$	Indicator equal to 1 if country j is classified as high risk according to the sovereign credit-default swap spreads and 0 otherwise (i.e., Ireland, Italy, and Spain)	Refinitiv Datastream
$CDS_SOVEREIGN_j$	Natural logarithm of country j's sovereign credit-default swap spreads	Refinitiv Datastream
$REL_MIN_{i,j}^{s-1}$	Bank i's risk-weighted assets to total assets relative to country j's minimum risk-weighted assets density at the quarter before the switch s	Refinitiv Datastream
$\varnothing RWAD_{i,j}$	Bank i's average risk-weighted assets to total assets across the sample period	Refinitiv Datastream
$IRB_COVERAGE_{i,j}^s$	Share of bank i's risk-weighted assets that are calculated using the internal ratings-based approach at the quarter of the switch s	Quarterly reports
$\varnothing HIGH_IRB_CVG_{i,j}$	Indicator equal to 1 if bank i's average coverage of the internal ratings-based approach is larger than the third quartile of the average coverage of all banks across the sample period and 0 otherwise	Quarterly reports
$RETURN_ON_RW A_{i,j}^{s-1}$	Bank i's net income to risk-weighted assets at the quarter before the switch s	Refinitiv Datastream
$LLR_{i,j}^{s-1}$	Bank i's loan-loss reserves to total assets at the quarter before the switch s	Refinitiv Datastream
$PRE_CRISIS_{i,j}$	Indicator equal to 1 if bank i switches before the crisis (2008 Q3) and 0 otherwise	Annual & disclosure reports
$EURO_{i,j}$	Indicator equal to 1 if bank i is headquartered in a euro country and 0 otherwise	Refinitiv Datastream
$G_SIB_{i,j}$	Indicator equal to 1 if bank i is a Global Systemically Important Bank (G-SIB) and 0 otherwise	Financial Stability Board
$EQUITY_{i,j}^{s-1}$	Bank i's equity to total assets at the quarter before the switch s	Refinitiv Datastream
$\varnothing EQUITY_{i,j}$	Bank i's average equity to total assets ratio across the sample period	Refinitiv Datastream
$SIZE_{i,j}^{s-1}$	Bank i's natural logarithm of total assets at the quarter before the switch s	Refinitiv Datastream
$\varnothing SIZE_{i,j}$	Bank i's average natural logarithm of total assets across the sample period	Refinitiv Datastream
$\varnothing DOMESTIC_CREDIT_j$	Country j's average credit to private non-financial sector from banks in percent of GDP across the sample period	World Bank
$\varnothing \Delta GDP_j$	Country j's average real GDP growth across the sample period	IMF

This table describes the variables used in the cross-sectional regression models.

Table A.8: Descriptions of the panel variables.

Variable	Description	Source
<i>Panel: dependent variable</i>		
$\Delta RWAD_{i,j,t}$	Quarterly change in bank i's risk-weighted assets to total assets in percent	Refinitiv Datastream
<i>Panel: independent variables</i>		
$LAX_REGULATION_{j,t}$	Indicator equal to 1 if country j is classified as country with less strict regulation and 0 otherwise	World Bank
$REGULATION_INDEX_{j,t}$	One over country j's regulatory stringency index initially calculated as suggested by Barth et al. (2013) where higher values indicate less stringent regulation	World Bank
$STRICT_SUPERVISION_{j,t}$	Indicator equal to 1 if country j is classified as country with strict supervision and 0 otherwise	World Bank
$SUPERVISION_INDEX_{j,t}$	Country j's supervisory power index calculated as suggested by Barth et al. (2013) where higher values indicate stricter supervision	World Bank
$CDS_SOVEREIGN_{j,t}$	Natural logarithm of country j's sovereign credit-default swap spreads	Refinitiv Datastream
$CDS_BANK_{i,j,t}$	Natural logarithm of bank i's credit-default swap spreads	Refinitiv Datastream
$IRB_{i,j,t}$	Indicator equal to 1 if bank i uses the internal ratings-based approach in a quarter and 0 otherwise	Annual & disclosure reports
$IRB_COVERAGE_{i,j,t}$	Share of bank i's risk-weighted assets that are calculated using the internal ratings-based approach	Quarterly reports
$G_SIB_{i,j,t}$	Indicator equal to 1 if bank i is a Global Systemically Important Bank (G-SIB) and 0 otherwise	Financial Stability Board
$\Delta LOANS_{i,j,t}$	Quarterly change of bank i's net loans in percent	Refinitiv Datastream
$\Delta CORPORATE_LOANS_{i,j,t}$	Quarterly change of bank i's corporate loans to total loans in percent	Quarterly reports
$\Delta RETURN_ON_RWA_{i,j,t}$	Quarterly change of bank i's net income to risk-weighted assets in percent	Refinitiv Datastream
$\Delta LLR_{i,j,t}$	Quarterly change of bank i's loan-loss reserves to total assets in percent	Refinitiv Datastream
$\Delta EQUITY_{i,j,t}$	Quarterly change of bank i's equity to total assets in percent	Refinitiv Datastream
$SIZE_{i,j,t}$	Bank i's natural logarithm of total assets	Refinitiv Datastream
$DOMESTIC_CREDIT_{j,t}$	Country j's credit to private non-financial sector from banks in percent of GDP	World Bank
$\Delta GDP_{j,t}$	Quarterly growth rate of a country j's real GDP in percent	IMF
$q2 / q3 / q4$	Indicators equal to 1 in quarter 2, 3 or 4 and 0 otherwise	-

This table describes the variables used in the panel regression models.

Table A.9: Summary statistics cross-section.

Variable	N	Mean	SD	Min	p25	Median	p75	Max
<i>Dependent variables</i>								
$\Delta RWAD_{i,j}^s$	52	-7.699	10.925	-33.149	-12.982	-5.747	-0.488	12.721
$\emptyset \Delta RWAD_{i,j}^{s+4}$	51	-2.187	4.455	-18.017	-4.341	-1.588	-0.053	10.134
$\emptyset \Delta RWAD_{i,j}^{s+8}$	50	-1.149	2.229	-7.203	-2.163	-1.119	0.361	4.741
$\emptyset \Delta RWAD_{i,j}^{s+12}$	50	-0.983	1.574	-4.527	-2.098	-0.847	0.016	3.184
$\emptyset \Delta RWAD_{i,j}^{s+16}$	49	-0.895	1.147	-3.053	-1.769	-0.888	-0.061	2.046
$\emptyset \Delta RWAD_{i,j}^{s+20}$	49	-0.900	1.085	-3.293	-1.788	-1.023	-0.173	1.272
$\emptyset \Delta RWAD_{i,j}^{s+24}$	48	-0.785	1.137	-3.671	-1.391	-0.718	-0.149	1.719
$\emptyset \Delta RWAD_{i,j}^{s+28}$	47	-0.614	1.091	-3.078	-1.272	-0.638	0.070	2.185
$\emptyset \Delta RWAD_{i,j}^{s+32}$	46	-0.547	1.105	-2.791	-1.307	-0.436	0.129	2.201
$\emptyset \Delta RWAD_{i,j}^{s+36}$	45	-0.527	0.987	-2.473	-1.145	-0.573	0.191	1.828
$\emptyset \Delta RWAD_{i,j}^{s+40}$	41	-0.500	0.883	-2.182	-1.060	-0.597	0.071	1.443
<i>Explanatory variables</i>								
$LAX_REGULATION_j$	52	0.135	0.345	0	0	0	0	1
$REGULATION_INDEX_j$	52	4.837	1.777	3.000	3.375	3.857	6.290	9.000
$STRICT_SUPERVISION_j$	52	0.115	0.323	0	0	0	0	1
$SUPERVISION_INDEX_j$	52	9.459	2.133	5.000	8.000	8.500	10.386	14.000
$HIGH_RISK_j$	52	0.212	0.412	0	0	0	0	1
$CDS_SOVEREIGN_j$	52	2.953	1.518	0.182	2.192	2.548	4.151	5.999
$REL_MIN_{i,j}^{s-1}$	52	25.922	14.379	2.622	16.034	26.200	32.658	76.911
$\emptyset RWAD_{i,j}$	52	43.971	14.273	19.422	30.337	45.192	52.134	69.403
$IRB_COVERAGE_{i,j}^s$	52	0.604	0.259	0.000	0.498	0.625	0.817	1.000
$\emptyset HIGH_IRB_CVG_{i,j}$	52	0.250	0.437	0	0	0	0.2	1
$RETURN_ON_RWAD_{i,j}^{s-1}$	52	0.326	0.439	-1.193	0.179	0.340	0.505	1.842
$LLR_{i,j}^{s-1}$	48	0.943	1.236	0.044	0.299	0.670	1.205	8.032
$PRE_CRISIS_{i,j}$	52	0.788	0.412	0	1	1	1	1
$EURO_{i,j}$	52	0.635	0.486	0	0	1	1	1
$G_SIB_{i,j}$	52	0.269	0.448	0	0	0	1	1
$EQUITY_{i,j}^{s-1}$	52	4.485	1.899	0.865	3.061	4.416	5.840	9.108
$\emptyset EQUITY_{i,j}$	52	5.359	1.742	1.226	4.134	5.225	6.254	9.541
$SIZE_{i,j}^{s-1}$	52	12.042	1.967	7.407	10.568	12.426	13.693	14.861
$\emptyset SIZE_{i,j}$	52	12.019	1.909	7.658	10.277	12.475	13.562	14.727
$\emptyset DOMESTIC_CREDIT_j$	52	102.936	30.431	60.827	83.214	91.548	117.979	177.113
$\emptyset GDP_j$	52	0.325	0.211	-0.031	0.270	0.315	0.362	1.174

This table provides descriptive statistics for the variables in the cross-sectional data set. N refers to the number of observations. “Mean” (“SD”) describes the mean (standard deviation) of each variable across all observations, respectively. “p25” (“p75”) refers to the 25th (75th) percentile of the distribution of each variable. Comprehensive variable descriptions are provided in Table A.7 in the Internet Appendix. As several banks switch later during our sample period, the number of available banks to calculate the average risk-weighted asset densities ($\emptyset \Delta RWAD_{i,j}^{s+r}$) decreases. Due to limited data availability, information on banks’ loan loss reserves to total assets at the quarter before the switch ($LLR_{i,j}^{s-1}$) is only available for 48 banks.

Table A.10: Summary statistics panel.

Variable	N	Mean	SD	Min	p25	Median	p75	Max
<i>Dependent variable</i>								
$\Delta RWAD_{i,j,t}$	2,231	-0.542	5.232	-17.672	-3.205	-0.704	1.803	17.355
<i>Explanatory variables</i>								
$LAX_REGULATION_{j,t}$	2,231	0.494	0.500	0	0	0	1	1
$REGULATION_INDEX_{j,t}$	2,231	0.542	0.201	0.333	0.375	0.429	0.682	1.000
$STRICT_SUPERVISION_{j,t}$	2,231	0.509	0.500	0	0	1	1	1
$SUPERVISION_INDEX_{j,t}$	2,231	0.694	0.140	0.357	0.571	0.714	0.786	1.000
$CDS_SOVEREIGN_{j,t}$	2,231	3.391	0.998	1.609	2.623	3.216	4.077	6.595
$CDS_BANK_{i,j,t}$	1,371	4.640	0.776	2.694	4.153	4.592	5.072	7.269
$\Delta LOANS_{i,j,t}$	2,231	0.145	7.514	-22.378	-3.700	0.000	3.482	28.799
$\Delta CORPORATE_LOANS_{i,j,t}$	1,408	1.879	41.988	-91.506	-1.800	-0.252	1.282	32.132
$\Delta LLR_{i,j,t}$	2,231	0.005	0.285	-3.336	-0.025	-0.001	0.023	5.752
$\Delta RETURN_ON_RWA_{i,j,t}$	2,231	-0.002	0.357	-3.287	-0.095	0.002	0.091	3.287
$\Delta EQUITY_{i,j,t}$	2,231	0.043	0.422	-4.485	-0.120	0.029	0.196	3.633
$IRB_{i,j,t}$	2,231	0.909	0.287	0	1	1	1	1
$IRB_COVERAGE_{i,j,t}$	2,119	0.617	0.259	0.000	0.528	0.674	0.815	1.000
$G_SIB_{i,j,t}$	2,231	0.197	0.398	0	0	0	0	1
$SIZE_{i,j,t}$	2,231	12.128	1.907	7.312	10.546	12.532	13.729	14.861
$DOMESTIC_CREDIT_{j,t}$	2,231	105.801	34.110	38.825	84.100	92.150	123.825	198.050
$\Delta GDP_{j,t}$	2,231	0.281	1.166	-6.842	-0.033	0.331	0.679	22.657

This table provides descriptive statistics for the variables in the panel data set. N refers to the number of observations. “Mean” (“SD”) describes the mean (standard deviation) of each variable across all observations, respectively. “p25” (“p75”) refers to the 25th (75th) percentile of the distribution of each variable. Comprehensive variable descriptions are provided in Table A.8 in the Internet Appendix. Due to limited data availability, information on banks’ credit-default swap spreads ($CDS_BANK_{i,j,t}$) and on the share of banks’ coverage of the internal ratings-based approach ($IRB_COVERAGE_{i,j,t}$) are not available for all bank-quarter observations.

Table A.11: Correlation matrix cross-section (Part 1).

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) $\Delta RWAD_{i,j}^s$	1	-0.018	0.019	0.022	0.073	0.069	-0.208	-0.291	0.004
(2) $REL_MIN_{i,j}^{s-1}$	-0.018	1	0.630	-0.625	-0.015	0.195	-0.004	0.142	-0.015
(3) $EQUITY_{i,j}^{s-1}$	0.019	0.630	1	-0.306	0.130	0.281	-0.226	0.111	-0.220
(4) $SIZE_{i,j}^{s-1}$	0.022	-0.625	-0.306	1	0.103	-0.117	0.048	-0.035	0.040
(5) $RETURN_ON_RWA_{i,j}^{s-1}$	0.073	-0.015	0.130	0.103	1	0.079	-0.170	0.017	0.175
(6) $LLR_{i,j}^{s-1}$	0.069	0.195	0.281	-0.117	0.079	1	0.001	0.219	-0.038
(7) $IRB_COVERAGE_{i,j}^s$	-0.208	-0.004	-0.226	0.048	-0.170	0.001	1	0.093	0.028
(8) $\emptyset DOMESTIC_CREDIT_j$	-0.291	0.142	0.111	-0.035	0.017	0.219	0.093	1	0.072
(9) $\emptyset \Delta GDP_j$	0.004	-0.015	-0.220	0.040	0.175	-0.038	0.028	0.072	1

This table reports correlation coefficients between all non-binary variables of the cross-sectional data set, used in the analysis at the quarter of the switch. Comprehensive variable descriptions are provided in Table A.7 in the Internet Appendix.

Table A.12: Correlation matrix cross-section (Part 2).

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) $\emptyset \Delta RWAD_{i,j}^{s+8}$	1	0.573	0.291	0.221	0.231	0.063	-0.130	0.191	-0.411	-0.024
(2) $\emptyset \Delta RWAD_{i,j}^{s+16}$	0.573	1	0.701	0.681	0.682	0.030	-0.138	0.118	-0.407	-0.146
(3) $\emptyset \Delta RWAD_{i,j}^{s+24}$	0.291	0.701	1	0.886	0.859	-0.070	-0.028	0.195	-0.146	-0.111
(4) $\emptyset \Delta RWAD_{i,j}^{s+32}$	0.221	0.681	0.886	1	0.972	-0.126	-0.146	0.202	-0.163	0.001
(5) $\emptyset \Delta RWAD_{i,j}^{s+40}$	0.231	0.682	0.859	0.972	1	-0.169	-0.166	0.207	-0.119	0.048
(6) $\emptyset RWAD_{i,j}$	0.063	0.030	-0.070	-0.126	-0.169	1	0.650	-0.691	-0.120	0.099
(7) $\emptyset EQUITY_{i,j}$	-0.130	-0.138	-0.028	-0.146	-0.166	0.650	1	-0.363	0.117	0.153
(8) $\emptyset SIZE_{i,j}$	0.191	0.118	0.195	0.202	0.207	-0.691	-0.363	1	-0.086	-0.031
(9) $\emptyset DOMESTIC_CREDIT_j$	-0.411	-0.407	-0.146	-0.163	-0.119	-0.120	0.117	-0.086	1	0.039
(10) $\emptyset \Delta GDP_j$	-0.024	-0.146	-0.111	0.001	0.048	0.099	0.153	-0.031	0.039	1

This table reports correlation coefficients between all non-binary variables of the cross-sectional data set, used in the analysis of the long-term development after the switch. Comprehensive variable descriptions are provided in Table A.7 in the Internet Appendix.

Table A.13: Correlation matrix panel.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) $\Delta RWAD_{i,j,t}$	1	-0.025	0.032	-0.073	-0.061	-0.078	0.061	0.001	0.265	0.001	0.071	-0.0005	0.027
(2) $REGULATION_INDEX_{j,t}$	-0.025	1	-0.163	-0.068	-0.031	-0.054	0.059	-0.016	0.010	0.142	0.021	0.047	-0.008
(3) $SUPERVISION_INDEX_{j,t}$	0.032	-0.163	1	-0.010	-0.028	-0.012	0.064	0.020	0.005	-0.015	-0.025	0.338	-0.127
(4) $CDS_SOVEREIGN_{j,t}$	-0.073	-0.068	-0.010	1	0.769	-0.048	0.124	-0.007	-0.020	-0.356	-0.056	0.161	-0.167
(5) $CDS_BANK_{i,j,t}$	-0.061	-0.031	-0.028	0.769	1	-0.064	0.116	0.012	0.025	-0.214	-0.149	0.034	-0.135
(6) $\Delta LOANS_{i,j,t}$	-0.078	-0.054	-0.012	-0.048	-0.064	1	-0.014	0.058	-0.079	-0.042	0.014	0.027	-0.005
(7) $\Delta LLR_{i,j,t}$	0.061	0.059	0.064	0.124	0.116	-0.014	1	-0.027	0.090	-0.046	-0.021	0.097	-0.196
(8) $\Delta RETURN_ON_RW A_{i,j,t}$	0.001	-0.016	0.020	-0.007	0.012	0.058	-0.027	1	0.152	0.024	-0.008	0.003	0.052
(9) $\Delta EQUITY_{i,j,t}$	0.265	0.010	0.005	-0.020	0.025	-0.079	0.090	0.152	1	0.025	-0.024	0.006	0.074
(10) $IRB_COVERAGE_{i,j,t}$	0.001	0.142	-0.015	-0.356	-0.214	-0.042	-0.046	0.024	0.025	1	0.110	-0.032	0.053
(11) $SIZE_{i,j,t}$	0.071	0.021	-0.025	-0.056	-0.149	0.014	-0.021	-0.008	-0.024	0.110	1	-0.022	-0.060
(12) $\emptyset DOMESTIC_CREDIT_j$	-0.0005	0.047	0.338	0.161	0.034	0.027	0.097	0.003	0.006	-0.032	-0.022	1	-0.091
(13) $\emptyset \Delta GDP_j$	0.027	-0.008	-0.127	-0.167	-0.135	-0.005	-0.196	0.052	0.074	0.053	-0.060	-0.091	1

This table reports correlation coefficients between the variables of the panel data set. Comprehensive variable descriptions are provided in Table A.8 in the Internet Appendix.

Table A.14: Summary statistics for the risk-weighted asset densities over time across banks for each country group.

Variable	N	Mean	SD	Median
Countries with less strict regulation	335	-0.94	5.88	-1.00
Countries with strict supervision	262	0.21	5.08	-0.13
High-risk countries	459	-0.84	4.40	-1.02
Remaining countries	1,175	-0.48	5.35	-0.72
Total	2,231	-0.54	5.23	-0.70

This table provides descriptive statistics for the change in risk-weighted asset density ($\Delta RWAD_{i,j,t}$) across country groups as defined in Section 3.2. N refers to the number of observations. “Mean” (“SD”) describes the mean (standard deviation) of the variable across observations, respectively. Comprehensive variable descriptions are provided in Table A.8 in the Internet Appendix.

A.5 Details on the indices suggested by Barth et al. (2013)

Table A.15: Overview of the Capital Regulatory Index.

	Description	True	False
<i>Overall Capital Stringency</i>			
1	Capital adequacy regulations are in line with Basel I guidelines	1	0
2	Credit risk is covered by regulatory minimum capital requirements	1	0
3	Market risk is covered by regulatory minimum capital requirements	1	0
4	Unrealized losses are deducted from regulatory capital	3	0
5	Less than 75% revaluation gains are allowed as part of capital	1	0
<i>Initial Capital Stringency</i>			
6	Sources of funds to be used as capital are verified by the regulatory/supervisory authorities	1	0
7	Initial disbursement or subsequent injections of capital can be done with assets other than cash or government securities	0	1
8	Initial capital contributions by prospective shareholders can be done in the form of borrowed funds	0	1
<i>Capital Regulatory Index</i>			
Σ	Higher values indicate greater stringency	max. 10	

The Capital Regulatory Index has been suggested by [Barth et al. \(2013\)](#) and is created based on the World Bank's Bank Regulation and Supervision Survey. This table summarizes the categories from the 2007, 2011, and 2019 surveys. The columns "True" and "False" indicate the respective score added to the index if the corresponding description is "True" or "False", respectively. The index is computed as the simple sum of the scores for each country.

Table A.16: Overview of the Supervisory Power Index.

	Description	True	False
<i>Supervisors' Enforcement Powers</i>			
1	The banking supervisor has the right to meet with external auditors to discuss their report without the approval of the bank	1	0
2	Auditors are required by law to communicate directly to the supervisory agency any presumed involvement of bank directors or senior managers in illicit activities, fraud, or insider abuse	1	0
3	In cases where the supervisor identifies that the bank has received an inadequate audit, the supervisor has the power to take actions against the external auditor	1	0
4	The supervisory authority can force a bank to change its internal organizational structure	1	0
5	Banks disclose off-balance sheet items to the supervisors	1	0
6	The supervisory agency can require banks to constitute provisions to cover actual or potential losses	1	0
7	The supervisory agency can require banks to reduce or suspend dividends to shareholders	1	0
8	The supervisory agency can require banks to reduce or suspend bonuses and other remuneration to bank directors and managers	2	0
<i>Bank Resolution Activities</i>			
9	The following authority has the powers to declare insolvency	max. 1	
	Bank supervisor	1	0
	Deposit insurance agency	0.5	0
	Bank restructuring or Asset Management Agency	0.5	0
10	The following authority has the powers to supersede	max. 2	
	Bank supervisor	2	0
	Deposit insurance agency	1	0
	Bank restructuring or Asset Management Agency	1	0
11	The following authority has the powers to remove and replace senior management and directors	max. 2	
	Bank supervisor	2	0
	Deposit insurance agency	1	0
	Bank restructuring or Asset Management Agency	1	0
<i>Official Supervisory Power Index</i>			
Σ	Higher values indicate greater power	max. 14	

The Supervisory Power Index has been suggested by [Barth et al. \(2013\)](#) and is created based on the World Bank's Bank Regulation and Supervision Survey. This table summarizes the categories from the 2007, 2011, and 2019 surveys. The columns "True" and "False" indicate the respective score added to the index if the corresponding description is "True" or "False", respectively. The index is computed as the simple sum of the scores for each country.

A.6 Convergence tests

Table A.17: Convergence test: overview of the country $\times$ quarter-fixed effects coefficients' significance (Part 1).

Quarter	High-risk countries			Countries with strict supervision		Countries with less strict regulation	
	Ireland	Italy	Spain	Switzerland	Austria	Sweden	Denmark
2007q1							
2007q2	+++	++	o	++		o	o
2007q3	++	+++	++	+++	o	o	o
2007q4	o	+++	++	+++	o	o	o
2008q1	o	o	o	o	o	o	---
2008q2	o	o	o	o	o	o	--
2008q3	o	+++	o	o	o	o	o
2008q4	o	+	o	o	o	--	--
2009q1	o	++	o	o	o	o	o
2009q2	+	o	o	o	---	o	---
2009q3	o	o	o	o	--	--	o
2009q4	o	+	o	++	o	o	o
2010q1	o	o	---	+++	--	---	o
2010q2	o	o	o	o	o	--	o
2010q3	o	o	o	+	++	o	---
2010q4	o	o	o	+++	o	o	o
2011q1	-	o	-	+	o	---	++
2011q2	o	o	o	++	o	-	o
2011q3	o	o	---	---	-	---	o
2011q4	o	o	o	+++	-	--	o
2012q1	o	o	--	o	o	---	o
2012q2	o	o	o	o	o	--	o
2012q3	---	o	o	++	o	---	o
2012q4	o	o	o	o	o	o	o
2013q1	o	o	o	+++	o	---	o
2013q2	o	o	o	+++	o	--	o
2013q3	o	o	---	---	o	o	o
2013q4	o	o	+	+++	o	o	---
2014q1	o	o	o	+++	o	---	o
2014q2	o	o	o	+++	o	o	---
2014q3	o	o	o	--	o	---	o
2014q4	o	o	o	o	-	o	o
2015q1	+++	++	--	+++	o	---	o
2015q2	++	o	o	++	o	o	o
2015q3	+++	o	o	+	o	---	o
2015q4	+++	o	o	+	--	o	o
2016q1	+++	o	o	o	o	---	o
2016q2	++	o	o	---	o	o	o
2016q3	+++	o	o	+++	o	o	o
2016q4	+++	o	o	o	o	+++	o
2017q1	o	o	o	+	---	---	o
2017q2	o	o	o	+++	o	o	o
2017q3	o	o	---	o	o	-	o
2017q4	o	o	o	++	o	+++	o
2018q1	+++		o	o	---	--	o
2018q2	++		---	o	o	o	o
2018q3	+++		o	+++	o	o	o
2018q4	+++		o	+++	---	+++	o
2019q1	+++		o	+++	---	---	o
2019q2	+++		o	o	o	-	o
2019q3	o		o	+++	o	---	o
2019q4							

Complementing Table A.18, this table summarizes the results of the convergence test based on a panel analysis with country $\times$ quarter-fixed effects as provided in Table A.19. +, ++, and +++ denote positive coefficients with a statistical significance at the 10%, 5%, and 1% levels, -, --, and --- denote negative coefficients, respectively. o refers to insignificant coefficients.

Table A.18: Convergence test: overview of the country $\times$ quarter-fixed effects coefficients' significance (Part 2).

Quarter	Remaining countries						
	Belgium	Finland	France	Germany	Netherlands	Norway	UK
2007q1							
2007q2	--	o	o	o		+++	o
2007q3	o	o	o	o		+++	o
2007q4	--	o	o	o		+++	o
2008q1	--	o	o	o		+++	o
2008q2	---	+	--	o		++	o
2008q3	---	o	o	o	o	+++	---
2008q4	o	o	o	o	o	+++	---
2009q1	---	o	o	o	+++	+++	+++
2009q2	--	--	+	o	+++	+++	+++
2009q3	---	o	-	o	--	+++	o
2009q4	o	o	o	o	--	+++	o
2010q1	---	o	--	o	+++	+++	-
2010q2	---	o	o	o	+++	+++	o
2010q3	---	+++	---	o	-	++	--
2010q4	---	o	o	o	---	+++	o
2011q1	---	++	---	o	o	++	---
2011q2	---	o	o	o	o	+++	--
2011q3	---	o	-	o	---	++	---
2011q4	---	o	o	++	---	+++	o
2012q1	---	o	--	o	+++	+++	o
2012q2	---	o	---	o	+++	+++	---
2012q3	---	o	---	o	--	+++	o
2012q4	---	o	o	o	--	+++	o
2013q1	---	+++	o	o	o	+++	--
2013q2	---	---	o	o	o	+++	o
2013q3	---	o	o	o	--	++	o
2013q4	---	o	o	o	o	+++	o
2014q1	++	o	o	+++	o	+++	o
2014q2	o	---	--	o	---	+++	o
2014q3	---	++	o	o	-	+++	---
2014q4	---	---	o	o	---	+++	-
2015q1	---	o	o	o	o	++	---
2015q2	---	o	o	+	++	+++	++
2015q3	---	o	o	o	o	+++	o
2015q4	---	o	o	o	---	+++	o
2016q1	---	o	--	o	o	+++	--
2016q2	---	o	--	o	o	+++	---
2016q3	---	--	o	o	--	+++	-
2016q4	---	o	o	o	---	+++	o
2017q1	---	o	-	o	o	+++	--
2017q2	---	o	-	o	o	+++	o
2017q3	---	o	o	o	o	+++	o
2017q4	---	o	o	o	o	+++	--
2018q1	---	+++	o	o	o	+++	o
2018q2	---	+++	o	o	o	+++	---
2018q3	---	---	o	o	o	+++	o
2018q4	---	---	--	++	o	+++	o
2019q1		---	-	o	o	+++	-
2019q2		+++	o	o	---	+++	---
2019q3		---	o	o	o	+++	---
2019q4							

Complementing Table A.17, this table summarizes the results of the convergence test based on a panel analysis with country $\times$ quarter-fixed effects as provided in Table A.19. +, ++, and +++ denote positive coefficients with a statistical significance at the 10%, 5%, and 1% levels, -, --, and --- denote negative coefficients, respectively. o refers to insignificant coefficients.

Table A.19: Convergence test: regression results of the corresponding panel analysis.

<i>Dependent variable: $\Delta RWAD_{i,j,t}$</i>	
	2007 Q1 – 2019 Q4
$IRB_{i,j,t-1}$	1.945** (0.875)
$\Delta LOANS_{i,j,t-4}$	0.023 (0.032)
$\Delta RETURN_ON_RWA_{i,j,t-4}$	−0.282 (0.302)
$\Delta LLR_{i,j,t-4}$	0.070 (0.638)
$\Delta EQUITY_{i,j,t-4}$	−0.739* (0.411)
$SIZE_{i,j,t-4}$	1.380 (0.904)
Bank and country $\times$ quarter-fixed effects	Yes
Observations	2,366
R ²	0.435
Adjusted R ²	0.177
F Statistic	1.811*** (df = 691; 1623)

This table reports regression results of the panel analysis using country $\times$ quarter-fixed effects with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j,t}$ is calculated as the quarterly change in bank i's risk-weighted assets to total assets in percent. $IRB_{i,j,t}$ is an indicator variable equal to 1 if bank i uses the internal ratings-based approach in a quarter and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.8 in the Internet Appendix. An overview of the country $\times$ quarter-fixed effects coefficients' significance is provided in Tables A.17 and A.18.

A.7 Robustness tests

Table A.20: Robustness test cross-section: role of regulatory strictness (at the quarter of the switch).

	<i>Dependent variable: $\Delta RWAD_{i,j}^s$</i>			
	(1)	(2)	(3)	(4)
<i>LAX_REGULATION_j</i>				−12.129* (7.060)
<i>STRICT_SUPERVISION_j</i>			12.544*** (4.853)	9.625* (5.114)
<i>HIGH_RISK_j</i>		8.267* (4.279)	11.408** (4.676)	8.801* (4.913)
<i>PRE_CRISIS_{i,j}</i>	5.029 (3.976)	5.661 (4.126)	3.823 (4.559)	4.240 (4.364)
<i>EURO_{i,j}</i>	−3.359 (3.228)	−5.744* (3.233)	−7.214** (3.437)	−8.705*** (3.110)
<i>REL_MIN_{i,j}^{s−1}</i>	0.028 (0.175)	0.040 (0.182)	0.228 (0.182)	0.246 (0.171)
<i>EQUITY_{i,j}^{s−1}</i>	0.977 (1.004)	0.257 (1.082)	−0.655 (1.150)	−0.402 (1.165)
<i>SIZE_{i,j}^{s−1}</i>	0.328 (1.083)	0.103 (0.980)	0.702 (1.002)	0.509 (0.990)
<i>∅DOMESTIC_CREDIT_j</i>	−0.137** (0.055)	−0.159*** (0.051)	−0.185*** (0.048)	−0.101 (0.070)
<i>∅ΔGDP_j</i>	3.269 (4.660)	2.369 (5.383)	−2.040 (5.777)	−1.461 (5.575)
<i>Constant</i>	−5.558 (13.326)	1.863 (12.090)	−1.684 (11.737)	−6.701 (11.595)
Observations	52	52	52	52
R ²	0.136	0.202	0.302	0.355
Adjusted R ²	−0.002	0.054	0.152	0.198
Residual Std. Error	10.935 (df = 44)	10.628 (df = 43)	10.058 (df = 42)	9.784 (df = 41)
F Statistic	0.987 (df = 7; 44)	1.360 (df = 8; 43)	2.019* (df = 9; 42)	2.259** (df = 10; 41)

This table reports regression results of the cross-sectional analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j}^s$ is calculated as the change in bank i's risk-weighted assets to total assets from the quarter before the switch to the quarter of the switch s in percent. *LAX_REGULATION_j*, *STRICT_SUPERVISION_j*, and *HIGH_RISK_j* are indicator variables equal to 1 if country j is classified as country with less strict regulation, strict supervision, and high country risk, respectively, and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.7 in the Internet Appendix.

Table A.21: Robustness test cross-section: identical sample size (development over time).

	Dependent variable: $\varnothing \Delta RWAD_{i,j}^{s+r}$				
	$r = 8$	$r = 16$	$r = 24$	$r = 32$	$r = 40$
	(1)	(2)	(3)	(4)	(5)
<i>LAX_REGULATION_j</i>	0.233 (1.682)	-2.008** (0.943)	-2.419*** (0.566)	-2.651*** (0.637)	-2.151*** (0.481)
<i>STRICT_SUPERVISION_j</i>	2.138** (1.058)	0.159 (0.919)	0.537 (0.446)	0.341 (0.503)	0.487 (0.377)
<i>HIGH_RISK_j</i>	0.784 (1.292)	-0.658 (0.704)	-0.497 (0.709)	-0.989* (0.579)	-0.812* (0.420)
<i>PRE_CRISSIS_{i,j}</i>	0.457 (0.824)	0.576 (0.645)	-0.139 (0.479)	0.043 (0.461)	0.217 (0.356)
<i>EURO_{i,j}</i>	-0.827 (0.776)	-0.288 (0.428)	-0.610 (0.501)	-0.127 (0.441)	0.021 (0.315)
<i>$\varnothing RWAD_{i,j}$</i>	0.057 (0.049)	0.0001 (0.033)	-0.021 (0.030)	-0.016 (0.025)	-0.018 (0.019)
<i>$\varnothing EQUITY_{i,j}$</i>	-0.321 (0.290)	-0.006 (0.163)	0.131 (0.181)	0.020 (0.139)	0.007 (0.103)
<i>$\varnothing SIZE_{i,j}$</i>	0.393 (0.341)	-0.043 (0.200)	-0.042 (0.173)	-0.072 (0.143)	-0.088 (0.110)
<i>$\varnothing DOMESTIC_CREDIT_j$</i>	-0.028* (0.016)	0.0005 (0.009)	0.008 (0.006)	0.014** (0.005)	0.012*** (0.004)
<i>$\varnothing \Delta GDP_j$</i>	-0.173 (1.155)	-0.262 (0.578)	-0.572 (0.473)	0.350 (0.356)	0.573** (0.278)
<i>Constant</i>	-3.890 (5.637)	-0.197 (3.790)	0.255 (2.740)	0.019 (2.081)	0.029 (1.699)
Observations	41	41	41	41	41
R ²	0.365	0.426	0.413	0.491	0.560
Adjusted R ²	0.154	0.234	0.217	0.321	0.413
Residual Std.	1.837	0.963	1.018	0.897	0.677
Error	(df = 30)	(df = 30)	(df = 30)	(df = 30)	(df = 30)
F Statistic (df = 10; 30)	1.726 (df = 10; 30)	2.223** (df = 10; 30)	2.110* (df = 10; 30)	2.895** (df = 10; 30)	3.811*** (df = 10; 30)

This table reports regression results of the cross-sectional analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\varnothing \Delta RWAD_{i,j}^{s+r}$ is calculated as the average change in bank i's risk-weighted assets to total assets across r quarters after the quarter of switch s in percent. *LAX_REGULATION_j*, *STRICT_SUPERVISION_j*, and *HIGH_RISK_j* are indicator variables equal to 1 if country j is classified as country with less strict regulation, strict supervision, and high country risk, respectively, and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.7 in the Internet Appendix.

Table A.22: Robustness test cross-section: categorical variables of regulatory strictness (at the quarter of the switch).

	<i>Dependent variable: $\Delta RWAD_{i,j}^s$</i>	
	(1)	(2)
<i>LAX_REGULATION_j</i>	−12.129* (7.060)	
<i>REGULATION_INDEX_j</i>		−2.330** (1.082)
<i>STRICT_SUPERVISION_j</i>	9.625* (5.114)	
<i>SUPERVISION_INDEX_j</i>		1.548* (0.852)
<i>HIGH_RISK_j</i>	8.801* (4.913)	
<i>CDS_SOVEREIGN_j</i>		2.163 (1.577)
<i>PRE_CRIISIS_{i,j}</i>	4.240 (4.364)	11.437** (5.611)
<i>EURO_{i,j}</i>	−8.705*** (3.110)	−4.508 (2.908)
<i>REL_MIN_{i,j}^{s−1}</i>	0.246 (0.171)	0.019 (0.157)
<i>EQUITY_{i,j}^{s−1}</i>	−0.402 (1.165)	0.712 (1.236)
<i>SIZE_{i,j}^{s−1}</i>	0.509 (0.990)	−1.029 (1.296)
<i>ØDOMESTIC_CREDIT_j</i>	−0.101 (0.070)	−0.198*** (0.056)
<i>ØΔGDP_j</i>	−1.461 (5.575)	10.318 (7.612)
<i>Constant</i>	−6.701 (11.595)	2.123 (13.410)
Observations	52	52
R ²	0.355	0.351
Adjusted R ²	0.198	0.193
Residual Std. Error	9.784 (df = 41)	9.814 (df = 41)
F Statistic	2.259** (df = 10; 41)	2.219** (df = 10; 41)

This table reports regression results of the cross-sectional analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j}^s$ is calculated as the change in bank i's risk-weighted assets to total assets from the quarter before the switch to the quarter of the switch s in percent. *LAX_REGULATION_j*, *STRICT_SUPERVISION_j*, and *HIGH_RISK_j* are indicator variables equal to 1 if country j is classified as country with less strict regulation, strict supervision, and high country risk, respectively, and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.7 in the Internet Appendix.

Table A.23: Robustness test cross-section: categorical variables of regulatory strictness (development over time).

	<i>Dependent variable: $\varnothing\Delta RWAD_{i,j}^{s+r}$</i>				
	<i>r</i> = 8	<i>r</i> = 16	<i>r</i> = 24	<i>r</i> = 32	<i>r</i> = 40
	(1)	(2)	(3)	(4)	(5)
<i>REGULATION_INDEX_j</i>	−0.167 (0.160)	−0.285*** (0.088)	−0.250** (0.111)	−0.255** (0.113)	−0.276*** (0.084)
<i>SUPERVISION_INDEX_j</i>	0.178 (0.162)	0.188** (0.081)	0.268*** (0.091)	0.315*** (0.093)	0.260*** (0.079)
<i>CDS_SOVEREIGN_j</i>	0.096 (0.277)	−0.092 (0.157)	0.061 (0.131)	−0.003 (0.138)	−0.079 (0.118)
<i>∅RWAD_{i,j}</i>	0.023 (0.043)	−0.029 (0.022)	−0.039 (0.027)	−0.037 (0.026)	−0.045** (0.022)
<i>PRE_CRISIS_{i,j}</i>	2.197* (1.285)	1.051* (0.626)	0.956 (0.660)	0.790 (0.833)	−0.291 (0.517)
<i>EURO_{i,j}</i>	−0.345 (0.613)	−0.210 (0.320)	−0.540 (0.398)	−0.368 (0.432)	−0.179 (0.347)
<i>∅EQUITY_{i,j}</i>	−0.153 (0.273)	0.178 (0.155)	0.219 (0.182)	0.151 (0.177)	0.190 (0.128)
<i>∅SIZE_{i,j}</i>	0.078 (0.363)	−0.144 (0.167)	−0.125 (0.175)	−0.122 (0.173)	−0.144 (0.147)
<i>∅DOMESTIC_CREDIT_j</i>	−0.030*** (0.011)	−0.023*** (0.006)	−0.020*** (0.007)	−0.020*** (0.006)	−0.015*** (0.005)
<i>∅ΔGDP_j</i>	1.579 (1.345)	0.297 (0.571)	0.142 (0.863)	0.393 (0.945)	0.391 (0.658)
<i>Constant</i>	−2.371 (4.376)	2.631 (2.160)	1.339 (2.545)	1.512 (2.584)	3.105 (2.299)
Observations	50	49	48	46	41
R ²	0.302	0.396	0.293	0.349	0.436
Adjusted R ²	0.123	0.237	0.102	0.164	0.248
Residual Std.	2.087	1.002	1.078	1.011	0.766
Error	(df = 39)	(df = 38)	(df = 37)	(df = 35)	(df = 30)
F Statistic	1.686 (df = 10; 39)	2.494** (df = 10; 38)	1.531 (df = 10; 37)	1.880* (df = 10; 35)	2.322** (df = 10; 30)

This table reports regression results of the cross-sectional analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\varnothing\Delta RWAD_{i,j}^{s+r}$ is calculated as the average change in bank *i*'s risk-weighted assets to total assets across *r* quarters after the quarter of switch *s* in percent. *REGULATION_INDEX_j* (*SUPERVISION_INDEX_j*) is country *j*'s inverted regulatory stringency index (country *j*'s supervisory power index). *CDS_SOVEREIGN_j* is defined as the natural logarithm of country *j*'s sovereign credit-default swap spreads. Comprehensive variable descriptions of all other variables are provided in Table A.7 in the Internet Appendix.

Table A.24: Robustness cross-section: IRB approach coverage (development over time).

	Dependent variable: $\varnothing \Delta RWAD_{i,j}^{s+r}$				
	$r = 8$	$r = 16$	$r = 24$	$r = 32$	$r = 40$
	(1)	(2)	(3)	(4)	(5)
<i>LAX_REGULATION_j</i>	0.430 (1.568)	-1.511* (0.832)	-1.701*** (0.604)	-2.120*** (0.640)	-2.103*** (0.499)
<i>STRICT_SUPERVISION_j</i>	2.756** (1.314)	0.804 (0.784)	1.043** (0.491)	0.791 (0.501)	0.428 (0.388)
<i>HIGH_RISK_j</i>	-0.152 (1.090)	-0.440 (0.629)	-0.458 (0.567)	-0.779 (0.561)	-0.923** (0.419)
<i>$\varnothing HIGH_IRB_CVG_{i,j}$</i>	-1.405* (0.813)	-0.169 (0.433)	-0.727* (0.417)	-0.296 (0.449)	-0.309 (0.385)
<i>PRE_CRISIS_{i,j}</i>	1.702** (0.806)	1.023** (0.421)	0.696* (0.419)	1.035* (0.613)	0.122 (0.379)
<i>EURO_{i,j}</i>	-0.090 (0.719)	-0.223 (0.440)	-0.442 (0.397)	-0.100 (0.412)	0.078 (0.302)
<i>$\varnothing RWAD_{i,j}$</i>	0.046 (0.040)	0.003 (0.025)	-0.018 (0.026)	-0.012 (0.024)	-0.021 (0.019)
<i>$\varnothing EQUITY_{i,j}$</i>	-0.250 (0.203)	-0.024 (0.121)	0.124 (0.129)	-0.006 (0.129)	0.016 (0.096)
<i>$\varnothing SIZE_{i,j}$</i>	0.170 (0.263)	-0.032 (0.142)	-0.043 (0.148)	-0.043 (0.140)	-0.125 (0.123)
<i>$\varnothing DOMESTIC_CREDIT_j$</i>	-0.025* (0.014)	-0.004 (0.007)	0.004 (0.006)	0.010 (0.006)	0.013*** (0.005)
<i>$\varnothing \Delta GDP_j$</i>	0.729 (0.813)	-0.270 (0.411)	-0.267 (0.494)	0.717 (0.498)	0.553* (0.286)
<i>Constant</i>	-2.849 (4.240)	-0.412 (2.539)	-0.331 (2.661)	-1.154 (2.159)	0.684 (2.036)
Observations	50	49	48	46	41
R ²	0.483	0.443	0.482	0.492	0.574
Adjusted R ²	0.334	0.277	0.324	0.328	0.413
Residual Std.	1.819	0.975	0.935	0.906	0.676
Error	(df = 38)	(df = 37)	(df = 36)	(df = 34)	(df = 29)
F Statistic	3.231*** (df = 11; 38)	2.671** (df = 11; 37)	3.048*** (df = 11; 36)	2.996*** (df = 11; 34)	3.560*** (df = 11; 29)

This table reports regression results of the cross-sectional analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\varnothing \Delta RWAD_{i,j}^{s+r}$ is calculated as the average change in bank i's risk-weighted assets to total assets across r quarters after the quarter of switch s in percent. *LAX_REGULATION_j*, *STRICT_SUPERVISION_j*, and *HIGH_RISK_j* are indicator variables equal to 1 if country j is classified as country with less strict regulation, strict supervision, and high country risk, respectively, and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.7 in the Internet Appendix.

Table A.25: Robustness test cross-section: alternative dependent variables (development over time).

	<i>Dependent variable: $\varnothing\Delta RWAD_{i,j}^{s+r}$</i>				
	<i>r</i> = 4	<i>r</i> = 12	<i>r</i> = 20	<i>r</i> = 28	<i>r</i> = 36
	(1)	(2)	(3)	(4)	(5)
<i>LAX_REGULATION_j</i>	4.690* (2.699)	−1.817** (0.783)	−1.801*** (0.659)	−1.873*** (0.540)	−2.110*** (0.536)
<i>STRICT_SUPERVISION_j</i>	7.559*** (2.469)	1.214 (0.909)	0.646 (0.534)	1.060** (0.449)	0.803* (0.437)
<i>HIGH_RISK_j</i>	4.419** (2.205)	−0.446 (0.762)	−0.513 (0.581)	−0.233 (0.554)	−0.566 (0.461)
<i>PRE_CRISSIS_{i,j}</i>	−0.848 (2.319)	1.500** (0.644)	0.526 (0.455)	0.634 (0.509)	0.910* (0.487)
<i>EURO_{i,j}</i>	−0.272 (1.407)	−0.145 (0.479)	−0.465 (0.359)	−0.500 (0.416)	−0.092 (0.354)
<i>∅RWAD_{i,j}</i>	0.106 (0.085)	0.014 (0.030)	0.001 (0.024)	−0.009 (0.024)	−0.020 (0.021)
<i>∅EQUITY_{i,j}</i>	−1.193*** (0.432)	−0.108 (0.168)	0.105 (0.140)	0.004 (0.136)	−0.010 (0.118)
<i>∅SIZE_{i,j}</i>	0.558 (0.649)	0.044 (0.186)	−0.012 (0.147)	0.005 (0.123)	−0.080 (0.115)
<i>∅DOMESTIC_CREDIT_j</i>	−0.082*** (0.029)	−0.007 (0.009)	−0.001 (0.007)	0.003 (0.005)	0.009* (0.005)
<i>∅ΔGDP_j</i>	2.136 (1.482)	0.507 (0.538)	−0.127 (0.532)	0.024 (0.386)	0.660** (0.332)
<i>Constant</i>	−0.929 (9.584)	−1.859 (3.191)	−1.087 (2.684)	−0.740 (1.984)	−0.296 (1.786)
Observations	51	50	49	47	45
R ²	0.419	0.489	0.393	0.458	0.527
Adjusted R ²	0.274	0.358	0.233	0.307	0.388
Residual Std.	3.796	1.262	0.950	0.908	0.773
Error	(df = 40)	(df = 39)	(df = 38)	(df = 36)	(df = 34)
F Statistic	2.888*** (df = 10; 40)	3.730*** (df = 10; 39)	2.459** (df = 10; 38)	3.041*** (df = 10; 36)	3.785*** (df = 10; 34)

This table reports regression results of the cross-sectional analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\varnothing\Delta RWAD_{i,j}^{s+r}$ is calculated as the average change in bank *i*'s risk-weighted assets to total assets across *r* quarters after the quarter of switch *s* in percent. *LAX_REGULATION_j*, *STRICT_SUPERVISION_j*, and *HIGH_RISK_j* are indicator variables equal to 1 if country *j* is classified as country with less strict regulation, strict supervision, and high country risk, respectively, and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.7 in the Internet Appendix.

Table A.26: Robustness test cross-section: alternative country grouping (development over time).

	<i>Dependent variable: $\varnothing\Delta RWAD_{i,j}^{s+r}$</i>				
	<i>r</i> = 8	<i>r</i> = 16	<i>r</i> = 24	<i>r</i> = 32	<i>r</i> = 40
	(1)	(2)	(3)	(4)	(5)
<i>LAX_REGULATION_j</i>	−1.149 (1.424)	−1.634** (0.672)	−1.824*** (0.621)	−1.974*** (0.657)	−2.212*** (0.487)
<i>STRICT_SUPERVISION_j</i>	1.940** (0.868)	0.340 (0.605)	0.703 (0.447)	0.529 (0.469)	0.174 (0.344)
<i>HIGH_RISK_j</i>	−0.305 (1.050)	−0.498 (0.555)	−0.393 (0.585)	−0.736 (0.558)	−0.996** (0.415)
<i>PRE_CRISSIS_{i,j}</i>	1.389 (0.909)	0.903** (0.407)	0.482 (0.500)	0.806 (0.648)	0.239 (0.320)
<i>EURO_{i,j}</i>	−0.397 (0.682)	−0.139 (0.368)	−0.449 (0.436)	−0.033 (0.426)	0.159 (0.328)
<i>∅RWAD_{i,j}</i>	0.047 (0.057)	−0.013 (0.035)	−0.020 (0.030)	−0.018 (0.026)	−0.026 (0.020)
<i>∅EQUITY_{i,j}</i>	−0.222 (0.251)	0.046 (0.145)	0.145 (0.162)	0.030 (0.142)	0.077 (0.100)
<i>∅SIZE_{i,j}</i>	0.207 (0.408)	−0.141 (0.214)	−0.042 (0.182)	−0.086 (0.156)	−0.145 (0.118)
<i>∅DOMESTIC_CREDIT_j</i>	−0.012 (0.011)	−0.005 (0.006)	0.004 (0.005)	0.008 (0.005)	0.013*** (0.004)
<i>∅ΔGDP_j</i>	0.635 (0.804)	−0.480 (0.365)	−0.555 (0.472)	0.356 (0.466)	0.442* (0.259)
<i>Constant</i>	−4.391 (6.244)	1.502 (3.721)	−0.261 (2.784)	−0.135 (2.292)	0.783 (1.779)
Observations	50	49	48	46	41
R ²	0.431	0.429	0.411	0.465	0.580
Adjusted R ²	0.285	0.278	0.252	0.312	0.440
Residual Std.	1.884	0.974	0.983	0.916	0.661)
Error	(df = 39)	(df = 38)	(df = 37)	(df = 35)	(df = 30)
F Statistic	2.955*** (df = 10; 39)	2.852*** (df = 10; 38)	2.587** (df = 10; 37)	3.043*** (df = 10; 35)	4.142*** (df = 10; 30)

This table reports regression results of the cross-sectional analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\varnothing\Delta RWAD_{i,j}^{s+r}$ is calculated as the average change in bank *i*'s risk-weighted assets to total assets across *r* quarters after the quarter of switch *s* in percent. *LAX_REGULATION_j*, *STRICT_SUPERVISION_j*, and *HIGH_RISK_j* are indicator variables equal to 1 if country *j* is classified as country with less strict regulation, strict supervision, and high country risk, respectively, and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.7 in the Internet Appendix.

Table A.27: Robustness test panel: categorical variables of regulatory strictness.

	Dependent variable: $\Delta RWAD_{i,j,t}$			
	(1)	(2)	(3)	(4)
$REGULATION_INDEX_{j,t-1} \times$ $IRB_{i,j,t-1}$		4.784** (2.328)		
$SUPERVISION_INDEX_{j,t-1} \times$ $IRB_{i,j,t-1}$			7.711*** (2.697)	
$CDS_SOVEREIGN_{j,t-1} \times$ $IRB_{i,j,t-1}$				0.175 (0.550)
$REGULATION_INDEX_{j,t-1}$	-1.172* (0.596)	-5.552** (2.260)	-1.166* (0.594)	-1.163* (0.599)
$SUPERVISION_INDEX_{j,t-1}$	0.241 (0.811)	0.396 (0.901)	-6.297** (2.487)	0.210 (0.846)
$CDS_SOVEREIGN_{j,t-1}$	-0.830*** (0.294)	-0.880*** (0.299)	-0.842*** (0.294)	-0.988* (0.551)
$IRB_{i,j,t-1}$	1.230* (0.617)	-1.366 (1.265)	-3.800** (1.694)	0.651 (2.151)
$G_SIB_{i,j,t}$	0.386 (0.365)	0.491 (0.345)	0.371 (0.356)	0.383 (0.363)
$\Delta LOANS_{i,j,t-4}$	-0.0273 (0.0264)	-0.0265 (0.0265)	-0.0271 (0.0266)	-0.0274 (0.0265)
$\Delta RETURN_ON_RWA_{i,j,t-4}$	0.504 (0.304)	0.495 (0.307)	0.506 (0.306)	0.505 (0.305)
$\Delta LLR_{i,j,t-4}$	-0.225 (0.477)	-0.249 (0.472)	-0.211 (0.482)	-0.227 (0.477)
$\Delta EQUITY_{i,j,t-4}$	1.236** (0.514)	1.250** (0.513)	1.241** (0.509)	1.234** (0.513)
$SIZE_{i,j,t-4}$	0.568 (0.542)	0.512 (0.545)	0.680 (0.527)	0.572 (0.539)
$DOMESTIC_CREDIT_{j,t-4}$	0.0100 (0.00668)	0.00967 (0.00643)	0.00930 (0.00657)	0.00990 (0.00675)
$\Delta GDP_{j,t-4}$	0.124* (0.0619)	0.120* (0.0619)	0.130** (0.0610)	0.124** (0.0618)
q^2	0.776 (0.741)	0.776 (0.742)	0.772 (0.742)	0.777 (0.742)
q^3	0.363 (0.619)	0.344 (0.620)	0.355 (0.621)	0.369 (0.623)
q^4	0.933 (1.326)	0.918 (1.326)	0.927 (1.327)	0.939 (1.328)
Bank and quarter-fixed effects	Yes	Yes	Yes	Yes
Observations	2,231	2,231	2,231	2,231
R ²	0.109	0.111	0.112	0.109
Adjusted R ²	0.0844	0.0859	0.0873	0.0841

This table reports regression results of the panel analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j,t}$ is calculated as the quarterly change in bank i's risk-weighted assets to total assets in percent. $REGULATION_INDEX_{j,t}$ ($SUPERVISION_INDEX_{j,t}$) is computed as one over country j's regulatory stringency index where higher values indicate less stringent regulation (country j's supervisory power index where higher values indicate stricter supervision). $CDS_SOVEREIGN_{j,t}$ is defined as the natural logarithm of country j's sovereign credit-default swap spreads. $IRB_{i,j,t}$ is an indicator variable equal to 1 if bank i uses the internal ratings-based approach in a quarter and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.8 in the Internet Appendix.

Table A.28: Robustness test panel: time period 2009 Q3 until 2019 Q4.

	Dependent variable: $\Delta RWAD_{i,j,t}$			
	(1)	(2)	(3)	(4)
$LAX_REGULATION_{j,t-1} \times g$		-0.442		
$IRB_{i,j,t-1}$		(1.018)		
$STRICT_SUPERVISION_{j,t-1} \times$			2.203*	
$IRB_{i,j,t-1}$			(1.210)	
$CDS_SOVEREIGN_{j,t-1} \times$				1.114**
$IRB_{i,j,t-1}$				(0.515)
$LAX_REGULATION_{j,t-1}$	-0.370	0.0636	-0.340	-0.370
	(0.285)	(1.091)	(0.287)	(0.286)
$STRICT_SUPERVISION_{j,t-1}$	0.361	0.359	-1.749	0.325
	(0.257)	(0.256)	(1.177)	(0.266)
$CDS_SOVEREIGN_{j,t-1}$	-0.937**	-0.934**	-0.884**	-2.027***
	(0.375)	(0.376)	(0.364)	(0.648)
$IRB_{i,j,t-1}$	0.975*	1.208	0.488	-3.081
	(0.513)	(0.901)	(0.529)	(1.979)
$G_SIB_{i,j,t}$	0.237	0.227	0.144	0.255
	(0.386)	(0.392)	(0.385)	(0.390)
$\Delta LOANS_{i,j,t-4}$	-0.0474	-0.0473	-0.0476	-0.0483
	(0.0326)	(0.0325)	(0.0327)	(0.0327)
$\Delta RETURN_ON_RWA_{i,j,t-4}$	0.752**	0.753**	0.740**	0.762**
	(0.347)	(0.348)	(0.351)	(0.345)
$\Delta LLR_{i,j,t-4}$	-0.456	-0.456	-0.445	-0.456
	(0.446)	(0.446)	(0.454)	(0.446)
$\Delta EQUITY_{i,j,t-4}$	1.090*	1.088*	1.107*	1.082*
	(0.574)	(0.574)	(0.571)	(0.575)
$SIZE_{i,j,t-4}$	0.335	0.335	0.403	0.382
	(0.521)	(0.522)	(0.516)	(0.530)
$DOMESTIC_CREDIT_{j,t-4}$	0.00816	0.00830	0.00765	0.00809
	(0.00795)	(0.00795)	(0.00790)	(0.00799)
$\Delta GDP_{j,t-4}$	0.0522	0.0526	0.0544	0.0561
	(0.0608)	(0.0609)	(0.0606)	(0.0605)
$q2$	0.737	0.738	0.738	0.736
	(0.742)	(0.743)	(0.741)	(0.741)
$q3$	0.411	0.414	0.419	0.422
	(0.634)	(0.635)	(0.633)	(0.636)
$q4$	0.954	0.957	0.961	0.963
	(1.345)	(1.347)	(1.345)	(1.347)
Bank and quarter-fixed effects	Yes	Yes	Yes	Yes
Observations	1,909	1,909	1,909	1,909
R ²	0.124	0.124	0.125	0.125
Adjusted R ²	0.0990	0.0985	0.0999	0.0996

This table reports regression results of the panel analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j,t}$ is calculated as the quarterly change in bank i's risk-weighted assets to total assets in percent. $LAX_REGULATION_{j,t}$ ($STRICT_SUPERVISION_{j,t}$) is an indicator variables equal to 1 if country j is classified as country with less strict regulation (strict supervision) and 0 otherwise. $CDS_SOVEREIGN_{j,t}$ is defined as the natural logarithm of country j's sovereign credit-default swap spreads. $IRB_{i,j,t}$ is an indicator variable equal to 1 if bank i uses the internal ratings-based approach in a quarter and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.8 in the Internet Appendix.

Table A.29: Robustness test panel: time period 2007 Q1 until 2012 Q4.

	Dependent variable: $\Delta RWAD_{i,j,t}$			
	(1)	(2)	(3)	(4)
$LAX_REGULATION_{j,t-1} \times$ $IRB_{i,j,t-1}$		2.368* (1.372)		
$STRICT_SUPERVISION_{j,t-1} \times$ $IRB_{i,j,t-1}$			2.760** (1.346)	
$CDS_SOVEREIGN_{j,t-1} \times$ $IRB_{i,j,t-1}$				0.217 (0.685)
$LAX_REGULATION_{j,t-1}$	1.607 (1.243)	-0.643 (1.658)	1.705 (1.261)	1.628 (1.250)
$STRICT_SUPERVISION_{j,t-1}$	-0.667 (0.483)	-0.600 (0.494)	-2.960** (1.292)	-0.657 (0.485)
$CDS_SOVEREIGN_{j,t-1}$	-0.978** (0.392)	-1.062*** (0.392)	-1.087** (0.409)	-1.153* (0.594)
$IRB_{i,j,t-1}$	1.780* (0.956)	0.507 (1.101)	0.591 (0.948)	1.079 (2.749)
$G_SIB_{i,j,t}$	-0.527 (0.709)	-0.322 (0.702)	-0.542 (0.695)	-0.543 (0.708)
$\Delta LOANS_{i,j,t-4}$	-0.0261 (0.0331)	-0.0253 (0.0333)	-0.0251 (0.0334)	-0.0265 (0.0334)
$\Delta RETURN_ON_RWA_{i,j,t-4}$	0.400 (0.410)	0.384 (0.421)	0.400 (0.419)	0.403 (0.412)
$\Delta LLR_{i,j,t-4}$	0.623 (0.587)	0.569 (0.569)	0.558 (0.556)	0.616 (0.591)
$\Delta EQUITY_{i,j,t-4}$	1.218*** (0.437)	1.237*** (0.441)	1.197*** (0.438)	1.216*** (0.435)
$SIZE_{i,j,t-4}$	-0.180 (1.681)	-0.325 (1.663)	0.143 (1.747)	-0.135 (1.691)
$DOMESTIC_CREDIT_{j,t-4}$	0.0751* (0.0387)	0.0704* (0.0374)	0.0638* (0.0373)	0.0748* (0.0388)
$\Delta GDP_{j,t-4}$	0.125 (0.213)	0.134 (0.213)	0.138 (0.209)	0.128 (0.214)
$q2$	0.00249 (1.012)	-0.0641 (1.011)	0.0152 (1.024)	0.00241 (1.008)
$q3$	-0.278 (1.107)	-0.354 (1.100)	-0.303 (1.113)	-0.296 (1.096)
$q4$	2.018* (1.087)	1.901* (1.093)	1.947* (1.085)	2.015* (1.081)
Bank and quarter-fixed effects	Yes	Yes	Yes	Yes
Observations	985	985	985	985
R ²	0.100	0.103	0.105	0.100
Adjusted R ²	0.0698	0.0723	0.0740	0.0690

This table reports regression results of the panel analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j,t}$ is calculated as the quarterly change in bank i 's risk-weighted assets to total assets in percent. $LAX_REGULATION_{j,t}$ ($STRICT_SUPERVISION_{j,t}$) is an indicator variables equal to 1 if country j is classified as country with less strict regulation (strict supervision) and 0 otherwise. $CDS_SOVEREIGN_{j,t}$ is defined as the natural logarithm of country j 's sovereign credit-default swap spreads. $IRB_{i,j,t}$ is an indicator variable equal to 1 if bank i uses the internal ratings-based approach in a quarter and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.8 in the Internet Appendix.

Table A.30: Robustness test panel: time period 2013 Q1 until 2019 Q4.

	Dependent variable: $\Delta RWAD_{i,j,t}$			
	(1)	(2)	(3)	(4)
$LAX_REGULATION_{j,t-1} \times$ $IRB_{i,j,t-1}$		3.578** (1.709)		
$STRICT_SUPERVISION_{j,t-1} \times$ $IRB_{i,j,t-1}$			3.578** (1.709)	
$CDS_SOVEREIGN_{j,t-1} \times$ $IRB_{i,j,t-1}$				4.094*** (1.438)
$LAX_REGULATION_{j,t-1}$	-0.311 (0.314)	-3.883** (1.790)	-0.305 (0.313)	-0.311 (0.311)
$STRICT_SUPERVISION_{j,t-1}$	0.945** (0.364)	0.943** (0.363)	-2.635 (1.732)	0.926** (0.362)
$CDS_SOVEREIGN_{j,t-1}$	0.330 (0.738)	0.338 (0.738)	0.338 (0.738)	-3.648** (1.596)
$IRB_{i,j,t-1}$	1.311 (0.800)	0.766* (0.454)	0.766* (0.454)	-10.46** (4.138)
$\Delta LOANS_{i,j,t-4}$	-0.0278 (0.0313)	-0.0277 (0.0313)	-0.0277 (0.0313)	-0.0269 (0.0312)
$\Delta RETURN_ON_RWA_{i,j,t-4}$	0.525 (0.459)	0.494 (0.473)	0.494 (0.473)	0.531 (0.454)
$\Delta LLR_{i,j,t-4}$	-0.500 (0.597)	-0.520 (0.596)	-0.520 (0.596)	-0.483 (0.617)
$\Delta EQUITY_{i,j,t-4}$	1.496* (0.801)	1.518* (0.806)	1.518* (0.806)	1.511* (0.801)
$SIZE_{i,j,t-4}$	2.519** (0.963)	2.492** (0.969)	2.492** (0.969)	2.425** (0.948)
$DOMESTIC_CREDIT_{j,t-4}$	0.00651 (0.0105)	0.00683 (0.0105)	0.00683 (0.0105)	0.00463 (0.0105)
$\Delta GDP_{j,t-4}$	0.0912 (0.0643)	0.0890 (0.0641)	0.0890 (0.0641)	0.0908 (0.0636)
q^2	0.913 (0.746)	0.915 (0.746)	0.915 (0.746)	0.928 (0.745)
q^3	0.716 (0.663)	0.709 (0.665)	0.709 (0.665)	0.752 (0.659)
q^4	1.285 (1.331)	1.278 (1.331)	1.278 (1.331)	1.321 (1.330)
Bank and quarter-fixed effects	Yes	Yes	Yes	Yes
Observations	1,246	1,246	1,246	1,246
R ²	0.136	0.137	0.137	0.139
Adjusted R ²	0.109	0.109	0.109	0.111

This table reports regression results of the panel analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j,t}$ is calculated as the quarterly change in bank i's risk-weighted assets to total assets in percent. $LAX_REGULATION_{j,t}$ ($STRICT_SUPERVISION_{j,t}$) is an indicator variables equal to 1 if country j is classified as country with less strict regulation (strict supervision) and 0 otherwise. $CDS_SOVEREIGN_{j,t}$ is defined as the natural logarithm of country j's sovereign credit-default swap spreads. $IRB_{i,j,t}$ is an indicator variable equal to 1 if bank i uses the internal ratings-based approach in a quarter and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.8 in the Internet Appendix.

Table A.31: Robustness test panel: banks' credit-default swap spreads to measure risk.

	Dependent variable: $\Delta RWAD_{i,j,t}$			
	(1)	(2)	(3)	(4)
$LAX_REGULATION_{j,t-1} \times$ $IRB_{i,j,t-1}$		1.620 (1.771)		
$STRICT_SUPERVISION_{j,t-1} \times$ $IRB_{i,j,t-1}$			4.410*** (1.572)	
$CDS_BANK_{j,t-1} \times$ $IRB_{i,j,t-1}$				-0.455 (0.878)
$LAX_REGULATION_{j,t-1}$	-0.660* (0.361)	-2.246 (1.751)	-0.546 (0.339)	-0.676* (0.367)
$STRICT_SUPERVISION_{j,t-1}$	0.0261 (0.286)	-0.00308 (0.305)	-4.041** (1.570)	0.0440 (0.294)
$CDS_BANK_{j,t-1}$	-0.712** (0.265)	-0.789*** (0.242)	-0.878*** (0.264)	-0.308 (0.792)
$IRB_{i,j,t-1}$	1.484 (0.908)	0.634 (1.174)	-0.123 (0.724)	3.573 (4.478)
$G_SIB_{i,j,t}$	-0.0692 (0.438)	0.0838 (0.482)	-0.155 (0.390)	-0.0572 (0.430)
$\Delta LOANS_{i,j,t-4}$	-0.0174 (0.0261)	-0.0156 (0.0267)	-0.0143 (0.0262)	-0.0176 (0.0260)
$\Delta RETURN_ON_RWA_{i,j,t-4}$	0.561* (0.329)	0.560* (0.330)	0.583* (0.328)	0.561* (0.329)
$\Delta LLR_{i,j,t-4}$	-0.658 (0.464)	-0.672 (0.461)	-0.669 (0.444)	-0.646 (0.466)
$\Delta EQUITY_{i,j,t-4}$	1.364** (0.562)	1.390** (0.566)	1.362** (0.556)	1.365** (0.563)
$SIZE_{i,j,t-4}$	0.538 (0.704)	0.585 (0.717)	0.672 (0.703)	0.526 (0.703)
$DOMESTIC_CREDIT_{j,t-4}$	0.0137** (0.00659)	0.0143** (0.00648)	0.0151** (0.00631)	0.0137** (0.00670)
$\Delta GDP_{j,t-4}$	0.145** (0.0543)	0.142** (0.0550)	0.148*** (0.0518)	0.144** (0.0545)
q^2	1.433 (1.009)	1.424 (1.005)	1.408 (1.005)	1.419 (1.011)
q^3	0.359 (0.953)	0.320 (0.942)	0.296 (0.943)	0.332 (0.956)
q^4	3.145* (1.639)	3.111* (1.628)	3.088* (1.629)	3.117* (1.651)
Bank and quarter-fixed effects	Yes	Yes	Yes	Yes
Observations	1,364	1,364	1,364	1,364
R ²	0.200	0.201	0.207	0.201
Adjusted R ²	0.164	0.164	0.170	0.163

This table reports regression results of the panel analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j,t}$ is calculated as the quarterly change in bank i's risk-weighted assets to total assets in percent. $LAX_REGULATION_{j,t}$ ($STRICT_SUPERVISION_{j,t}$) is an indicator variables equal to 1 if country j is classified as country with less strict regulation (strict supervision) and 0 otherwise. $CDS_BANK_{j,t}$ is defined as the natural logarithm of bank i's credit-default swap spreads. $IRB_{i,j,t}$ is an indicator variable equal to 1 if bank i uses the internal ratings-based approach in a quarter and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.8 in the Internet Appendix.

Table A.32: Robustness test panel: IRB approach coverage.

	Dependent variable: $\Delta RWAD_{i,j,t}$			
	(1)	(2)	(3)	(4)
$LAX_REGULATION_{j,t-1} \times$ $IRB_COVERAGE_{i,j,t-1}$		1.693* (0.851)		
$STRICT_SUPERVISION_{j,t-1} \times$ $IRB_COVERAGE_{i,j,t-1}$			2.929*** (1.094)	
$CDS_SOVEREIGN_{j,t-1} \times$ $IRB_COVERAGE_{i,j,t-1}$				0.680*** (0.186)
$LAX_REGULATION_{j,t-1}$	-0.751** (0.333)	-2.360** (0.907)	-0.634* (0.322)	-0.757** (0.333)
$STRICT_SUPERVISION_{j,t-1}$	0.0863 (0.226)	0.110 (0.232)	-2.559** (1.035)	0.125 (0.229)
$CDS_SOVEREIGN_{j,t-1} \times$ $IRB_COVERAGE_{i,j,t-1}$	-0.682** (0.287)	-0.789*** (0.285)	-0.777*** (0.284)	-1.442*** (0.352)
$IRB_COVERAGE_{i,j,t-1}$	-0.244 (0.757)	-0.775 (0.778)	-0.907 (0.756)	-2.447** (0.929)
$G_SIB_{i,j,t}$	0.302 (0.365)	0.422 (0.369)	0.178 (0.355)	0.201 (0.376)
$\Delta LOANS_{i,j,t-4}$	-0.0310 (0.0264)	-0.0297 (0.0266)	-0.0293 (0.0268)	-0.0311 (0.0264)
$\Delta RETURN_ON_RWA_{i,j,t-4}$	0.501 (0.319)	0.487 (0.321)	0.498 (0.321)	0.488 (0.316)
$\Delta LLR_{i,j,t-4}$	-0.309 (0.482)	-0.313 (0.478)	-0.298 (0.483)	-0.331 (0.470)
$\Delta EQUITY_{i,j,t-4}$	1.434*** (0.529)	1.457*** (0.533)	1.445*** (0.531)	1.441*** (0.531)
$SIZE_{i,j,t-4}$	0.514 (0.534)	0.529 (0.534)	0.682 (0.529)	0.527 (0.539)
$DOMESTIC_CREDIT_{j,t-4}$	0.00908 (0.00640)	0.00876 (0.00619)	0.0102 (0.00626)	0.0103 (0.00651)
$\Delta GDP_{j,t-4}$	0.126* (0.0634)	0.123* (0.0626)	0.129** (0.0612)	0.128** (0.0634)
q^2	0.741 (0.750)	0.734 (0.751)	0.735 (0.752)	0.738 (0.752)
q^3	0.254 (0.647)	0.217 (0.649)	0.228 (0.653)	0.255 (0.652)
q^4	1.034 (1.402)	0.999 (1.403)	1.010 (1.403)	1.021 (1.404)
Bank and quarter-fixed effects	Yes	Yes	Yes	Yes
Observations	2,119	2,119	2,119	2,119
R ²	0.119	0.121	0.123	0.123
Adjusted R ²	0.0931	0.0946	0.0975	0.0966

This table reports regression results of the panel analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j,t}$ is calculated as the quarterly change in bank i's risk-weighted assets to total assets in percent. $LAX_REGULATION_{j,t}$ ($STRICT_SUPERVISION_{j,t}$) is an indicator variables equal to 1 if country j is classified as country with less strict regulation (strict supervision) and 0 otherwise. $CDS_SOVEREIGN_{j,t}$ is defined as the natural logarithm of country j's sovereign credit-default swap spreads. $IRB_COVERAGE_{i,j,t}$ is the share of bank i's risk-weighted assets that are calculated using the internal ratings-based approach. Comprehensive variable descriptions of all other variables are provided in Table A.8 in the Internet Appendix.

Table A.33: Robustness test panel: Corporate loan share.

	Dependent variable: $\Delta RWAD_{i,j,t}$			
	(1)	(2)	(3)	(4)
$LAX_REGULATION_{j,t-1} \times$ $IRB_{i,j,t-1}$		1.117 (1.625)		
$STRICT_SUPERVISION_{j,t-1} \times$ $IRB_{i,j,t-1}$			4.922* (2.441)	
$CDS_SOVEREIGN_{j,t-1} \times$ $IRB_{i,j,t-1}$				-0.552 (0.868)
$LAX_REGULATION_{j,t-1}$	-0.444 (0.468)	-1.521 (1.640)	-0.220 (0.460)	-0.432 (0.466)
$STRICT_SUPERVISION_{j,t-1}$	0.630* (0.346)	0.610* (0.352)	-4.048 (2.420)	0.676* (0.357)
$CDS_SOVEREIGN_{j,t-1}$	-1.392*** (0.493)	-1.385*** (0.498)	-1.422*** (0.512)	-0.871 (0.950)
$IRB_{i,j,t-1}$	1.434* (0.816)	0.759 (0.855)	0.0646 (0.481)	3.347 (3.392)
$G_SIB_{i,j,t}$	0.488 (0.749)	0.571 (0.720)	0.394 (0.711)	0.458 (0.750)
$\Delta CORPORATE_LOANS_{i,j,t-4}$	-0.00112 (0.00267)	-0.00105 (0.00271)	-0.00157 (0.00257)	-0.00134 (0.00276)
$\Delta RETURN_ON_RWA_{i,j,t-4}$	0.239 (0.396)	0.223 (0.402)	0.164 (0.407)	0.231 (0.398)
$\Delta LLR_{i,j,t-4}$	-0.115 (0.325)	-0.122 (0.322)	-0.123 (0.319)	-0.115 (0.324)
$\Delta EQUITY_{i,j,t-4}$	1.406* (0.754)	1.417* (0.751)	1.446* (0.746)	1.413* (0.755)
$SIZE_{i,j,t-4}$	1.789*** (0.517)	1.808*** (0.509)	1.675*** (0.598)	1.699*** (0.480)
$DOMESTIC_CREDIT_{j,t-4}$	0.00455 (0.00939)	0.00361 (0.00954)	0.00318 (0.0101)	0.00509 (0.00954)
$\Delta GDP_{j,t-4}$	0.0582 (0.0688)	0.0565 (0.0693)	0.0611 (0.0673)	0.0545 (0.0689)
$q2$	1.404* (0.719)	1.404* (0.719)	1.397* (0.719)	1.402* (0.719)
$q3$	0.0383 (0.501)	0.0348 (0.502)	0.0131 (0.506)	0.0265 (0.502)
$q4$	1.282 (1.415)	1.278 (1.415)	1.255 (1.413)	1.271 (1.414)
Bank and quarter-fixed effects	Yes	Yes	Yes	Yes
Observations	1,330	1,330	1,330	1,330
R ²	0.127	0.127	0.135	0.127
Adjusted R ²	0.0854	0.0852	0.0938	0.0852

This table reports regression results of the panel analysis with robust standard errors in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Key variables: $\Delta RWAD_{i,j,t}$ is calculated as the quarterly change in bank i's risk-weighted assets to total assets in percent. $LAX_REGULATION_{j,t}$ ($STRICT_SUPERVISION_{j,t}$) is an indicator variables equal to 1 if country j is classified as country with less strict regulation (strict supervision) and 0 otherwise. $CDS_SOVEREIGN_{j,t}$ is defined as the natural logarithm of country j's sovereign credit-default swap spreads. $IRB_{i,j,t}$ is an indicator variable equal to 1 if bank i uses the internal ratings-based approach in a quarter and 0 otherwise. Comprehensive variable descriptions of all other variables are provided in Table A.8 in the Internet Appendix.