

ONLINE APPENDIX

The Home Bias in Sovereign Ratings

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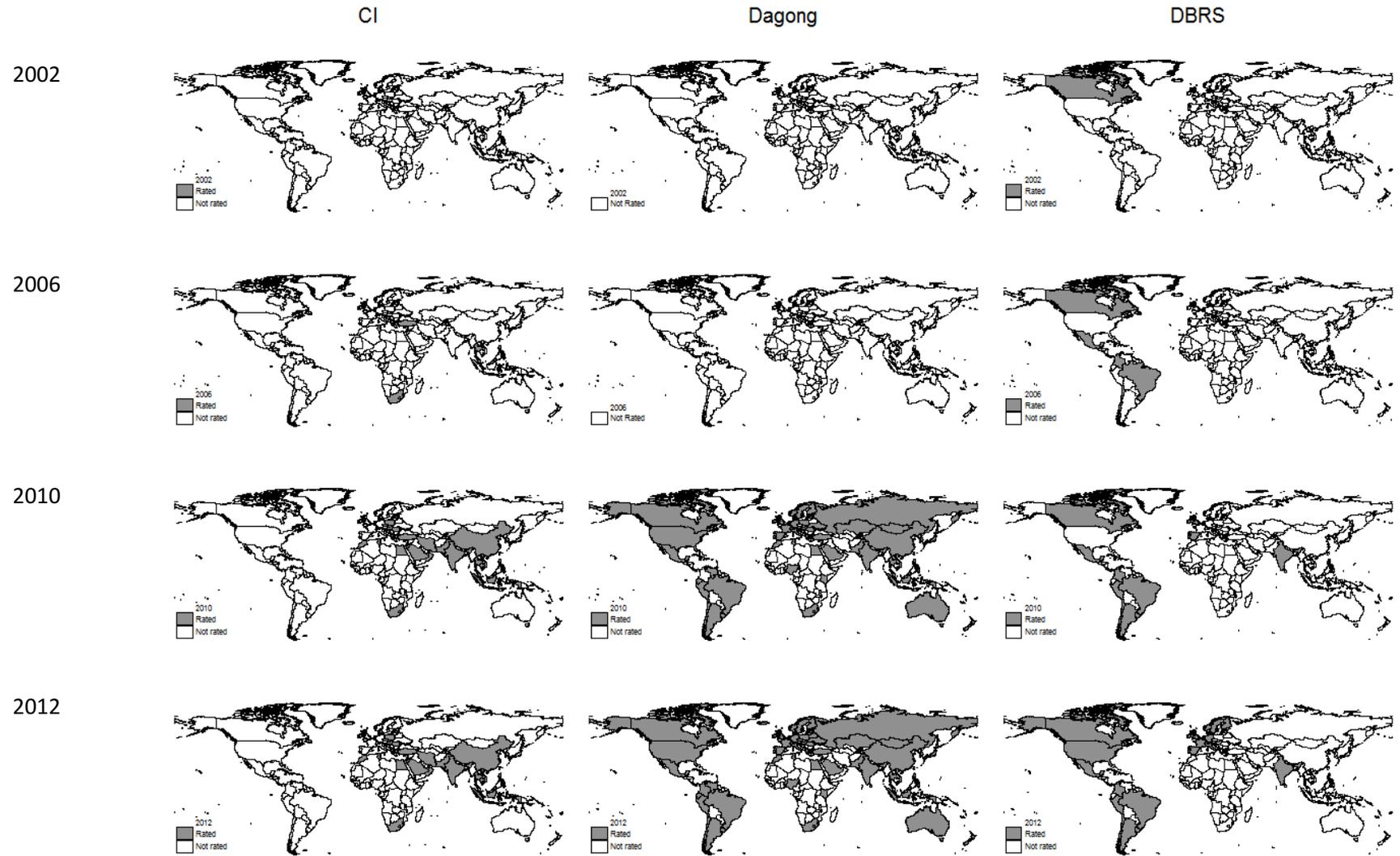
- Appendix G1:** Detailed sources of overview tables

Appendix A1: Translation of sovereign ratings into numerical values (21-point scale)

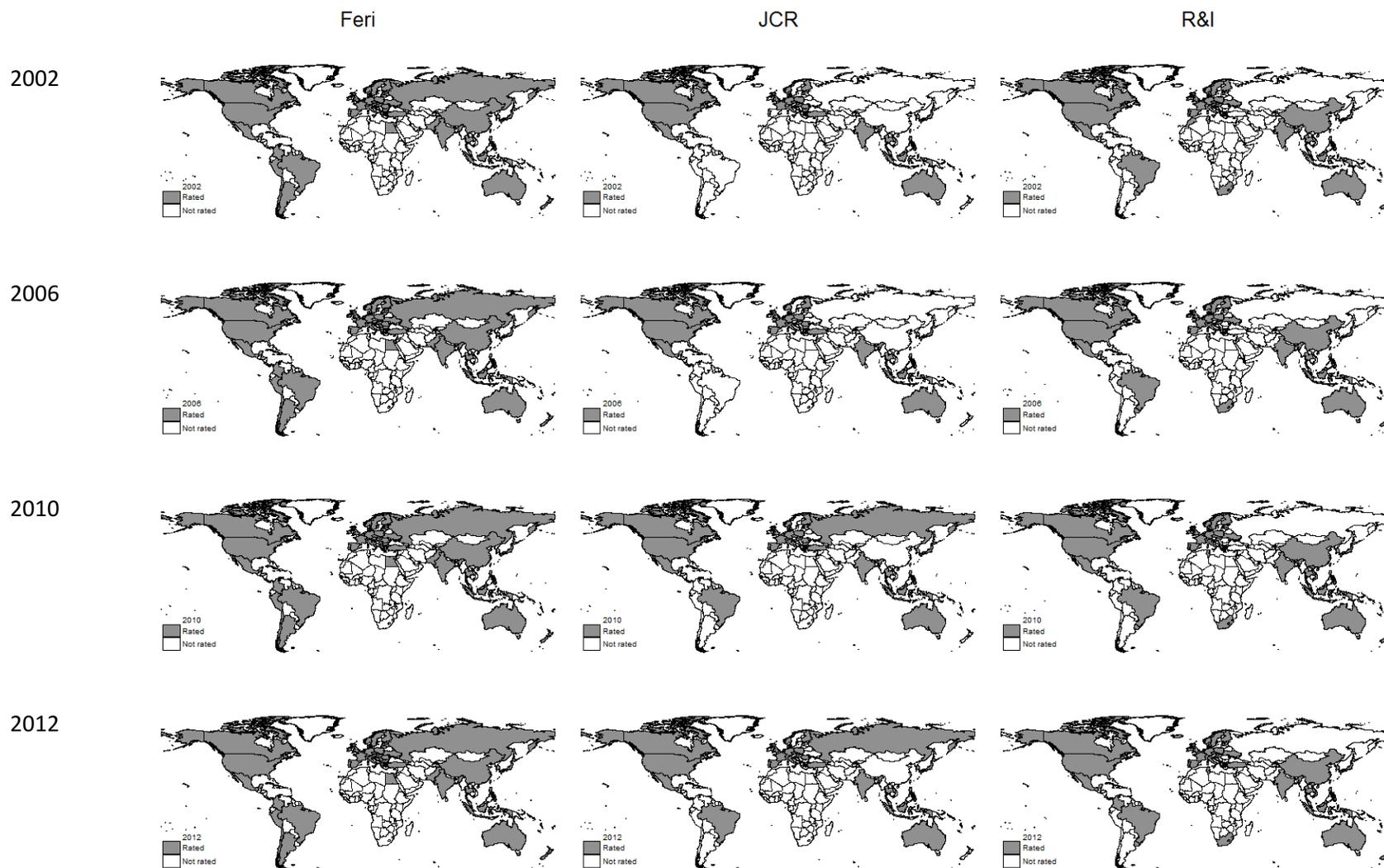
CI CYP (KWT)	Dagong CHN	DBRS CAN	Feri DEU	Fitch USA (FRA)	Moody's USA	JCR JPN	R&I JPN	S&P USA	Numerical scale
AAA	AAA	AAA	AAA	AAA	Aaa	AAA	AAA	AAA	21
AA+	AA+	AAH	AA+	AA+	Aa1	AA+	AA+	AA+	20
AA	AA	AA	AA	AA	Aa2	AA	AA	AA	19
AA-	AA-	AAL	AA-	AA-	Aa3	AA-	AA-	AA-	18
A+	A+	AH	A+	A+	A1	A+	A+	A+	17
A	A	A	A	A	A2	A	A	A	16
A-	A-	AL	A-	A-	A3	A-	A-	A-	15
BBB+	BBB+	BBBH	BBB+	BBB+	Baa1	BBB+	BBB+	BBB+	14
BBB	BBB	BBB	BBB	BBB	Baa2	BBB	BBB	BBB	13
BBB-	BBB-	BBBL	BBB-	BBB-	Baa3	BBB-	BBB-	BBB-	12
BB+	BB+	BBH	BB+	BB+	Ba1	BB+	BB+	BB+	11
BB	BB	BB	BB	BB	Ba2	BB	BB	BB	10
BB-	BB-	BBL	BB-	BB-	Ba3	BB-	BB-	BB-	9
B+	B+	BH	B+	B+	B1	B+	B+	B+	8
B	B	B	B	B	B2	B	B	B	7
B-	B-	BL	B-	B-	B3	B-	B-	B-	6
CCC+	CCC+	CCCH	CCC+	CCC+	Caa1	CCC+	CCC+	CCC+	5
CCC	CCC	CCC	CCC	CCC	Caa2	CCC	CCC	CCC	4
CCC-	CCC-	CCCL	CCC-	CCC-	Caa3	CCC-	CCC-	CCC-	3
CC	CC	CC	CC	CC	Ca	CC	CC	CC	2
C	C	C		C	C	C		C	1
DDD				DDD		DDD		SD	1
DD				DD		DD			1
D	D	D	D	D		D	D	D	1
				RD		RD			1

Sources: Rating scales from company webpages, except DBRS and Feri. DBRS and Feri scales were obtained from the agencies via personal e-mail communication.

Appendix A2: Geographical expansion of smaller credit rating agencies (2002-2012)



Appendix A2 (continued): Geographical expansion of smaller credit rating agencies (2002-2012)



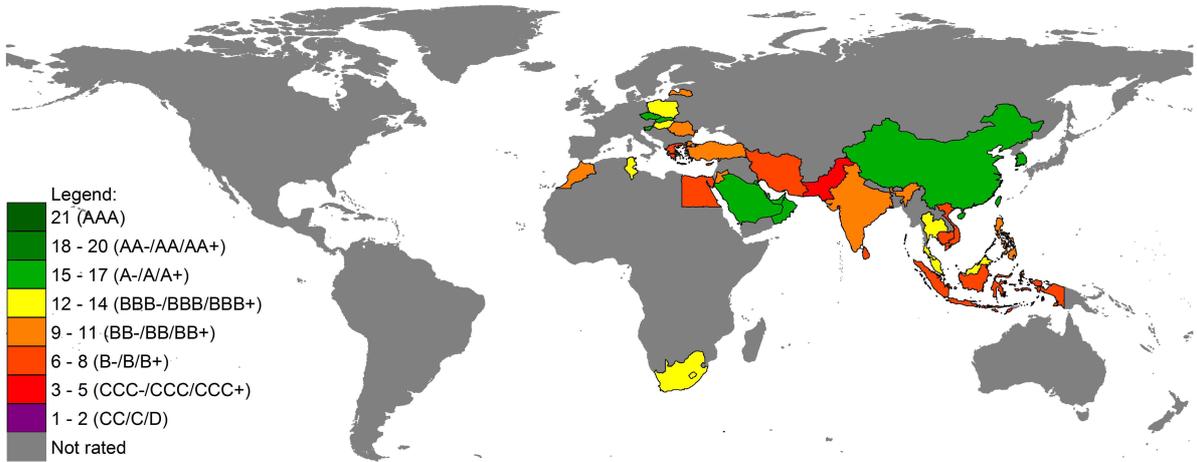
Appendix A3: Solicitation status by credit rating agency

	Solicited	Unsolicited
CI	None	All sovereigns
Dagong	Almost none	Virtually all sovereigns
DBRS	Argentina, Brazil, Canada, Chile, Colombia, India, Ireland, Mexico, Peru, Spain, United States, Uruguay	Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Portugal, Sweden, Switzerland, United Kingdom
Feri	None	All sovereigns
Fitch	All other sovereigns	United Kingdom
JCR	Hungary, Mexico, Poland, Romania	All other sovereigns
Moody's	All other sovereigns	<i>Constantly over the 2010-2013 period:</i> France, Germany, Italy, Netherlands, Switzerland, UK <i>Partially during the 2010-2013 period:</i> Mauritius, Mozambique, Luxembourg, Uganda, Zambia
R&I	Croatia, Greece, Ireland, South Africa, Tunisia, Ukraine, Uruguay	All other sovereigns
S&P	All other sovereigns	Argentina, Australia, Belgium, Cambodia, France, India, Italy, Japan, Netherlands, Singapore, Switzerland, Taiwan, Turkey, United Kingdom, United States

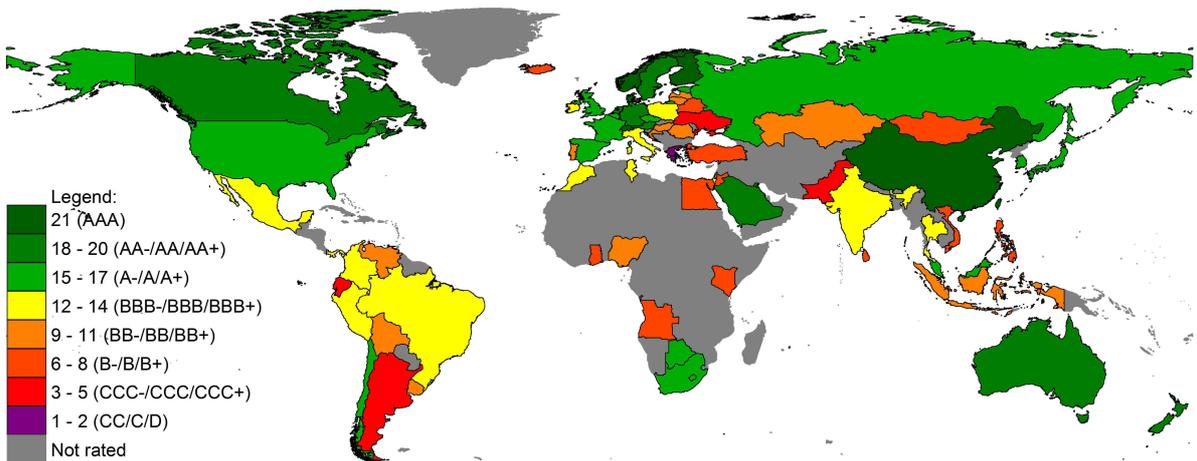
Sources: CI: Agency's website (<http://www.ciratings.com/sovereign-ratings-table>; accessed 31 January 2016) – Dagong: E-mail correspondence (21 December 2015) – DBRS: Agency's website (<http://www.dbrs.com/research/283791/list-of-unsolicited-ratings-issued-in-europe.pdf> and <http://www.dbrs.com/research/283792/list-of-unsolicited-ratings-issued-in-north-america.pdf>; data as of 30 September 2015; accessed 30 January 2016) – Feri: See Appendix A6 – Fitch: Agency's website (https://www.fitchratings.com/gws/en/disclosure/solicitation?pr_id=789068; accessed 30 January 2016) – JCR: E-mail correspondence (18 December 2015) – Moody's: – R&I: E-mail correspondence (15 January 2016) – S&P: Agency's website (<http://www.standardandpoors.com/ratings/sovereigns/ratings-list/en/us/?sectorName=null&subSectorCode=>; accessed June 2013).

Appendix A4: Sovereign ratings by agency and country (as of 28 June 2013)

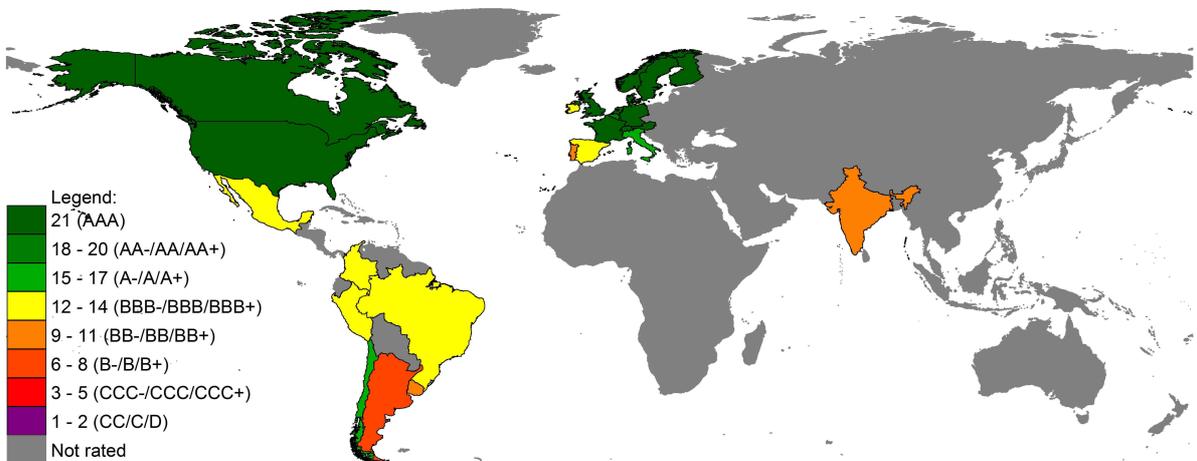
(a) CI (Cyprus/Kuwait)



(b) Dagong (China)

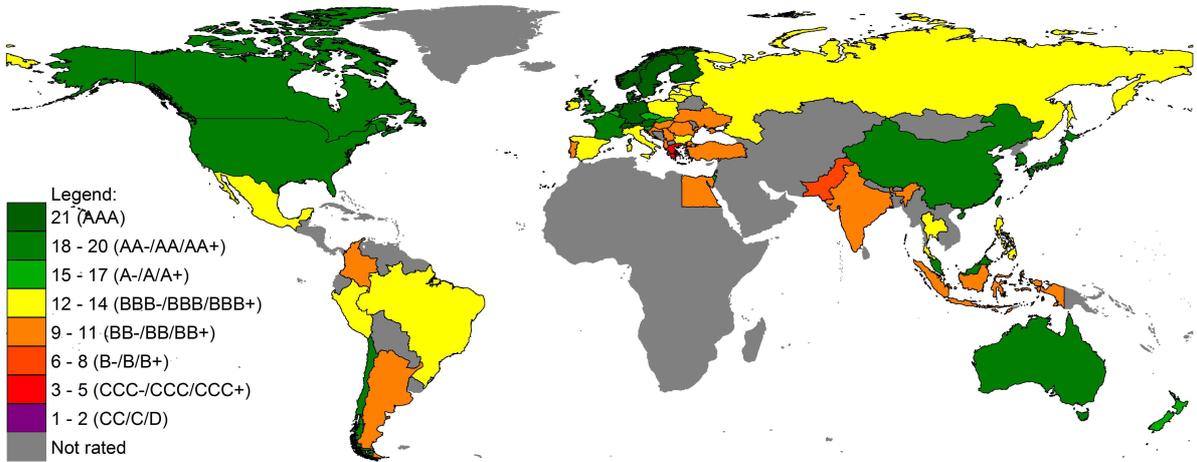


(c) DBRS (Canada)

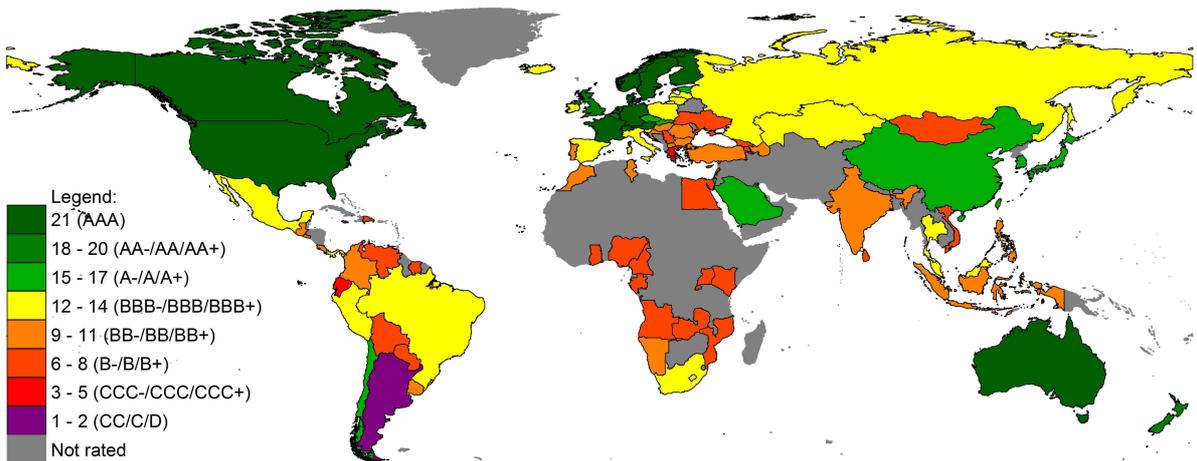


Appendix A4 (continued): Sovereign ratings by agency and country (as of 28 June 2013)

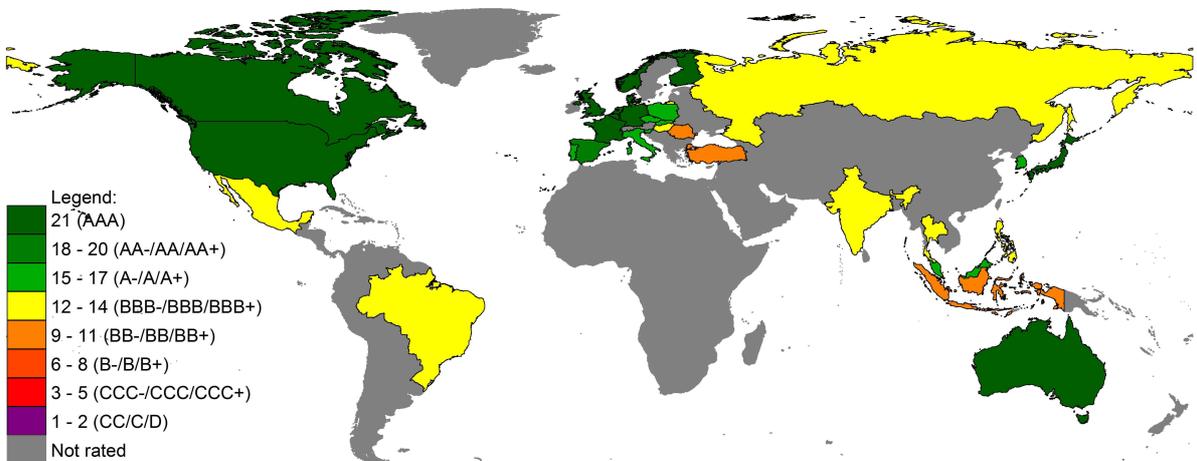
(d) Feri (Germany)



(e) Fitch (USA/France)

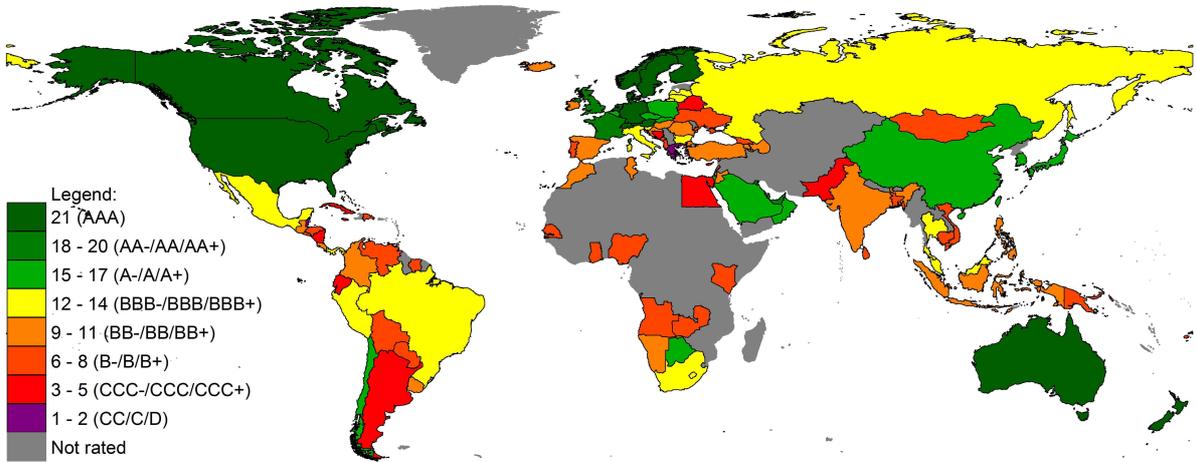


(f) JCR (Japan)

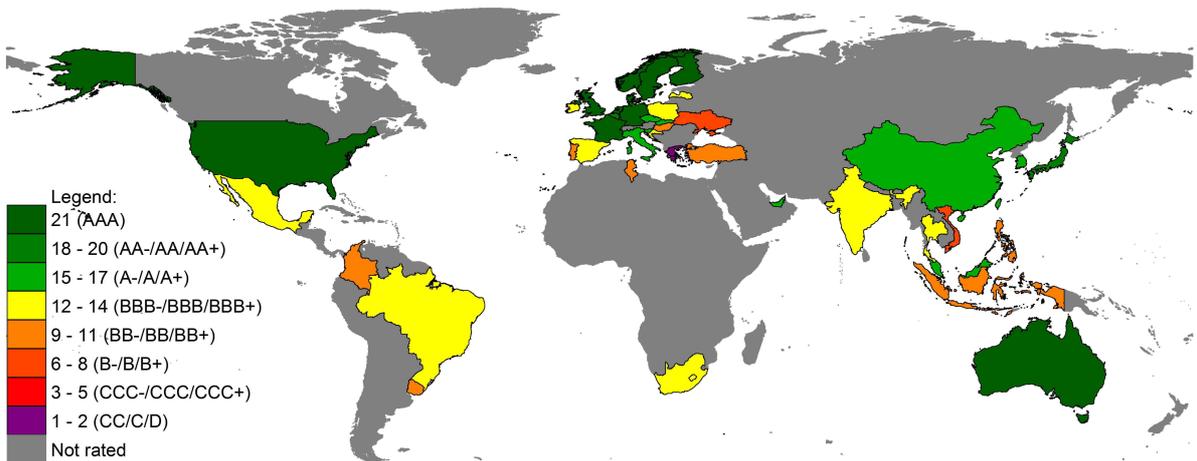


Appendix A4 (continued): Sovereign ratings by agency and country (as of 28 June 2013)

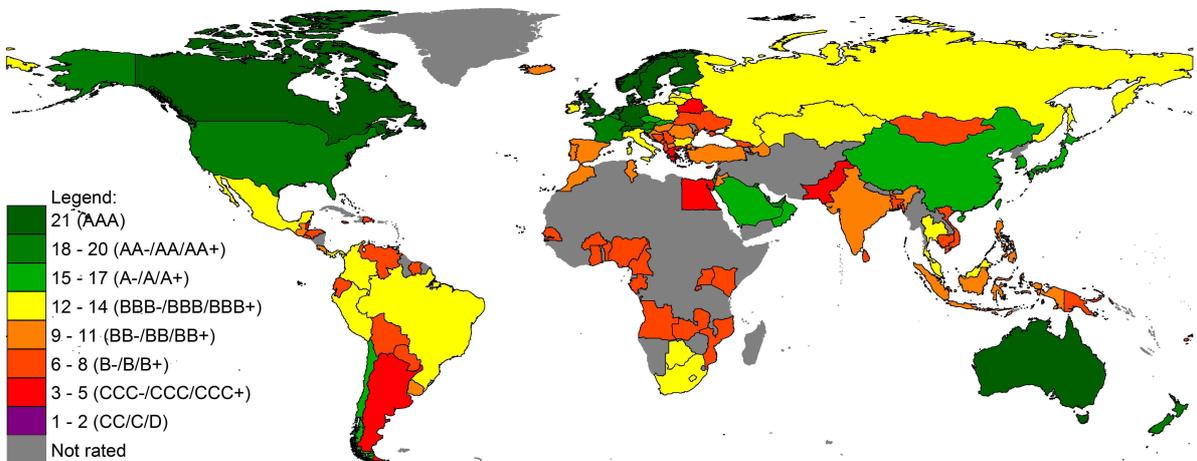
(g) Moody's (USA)



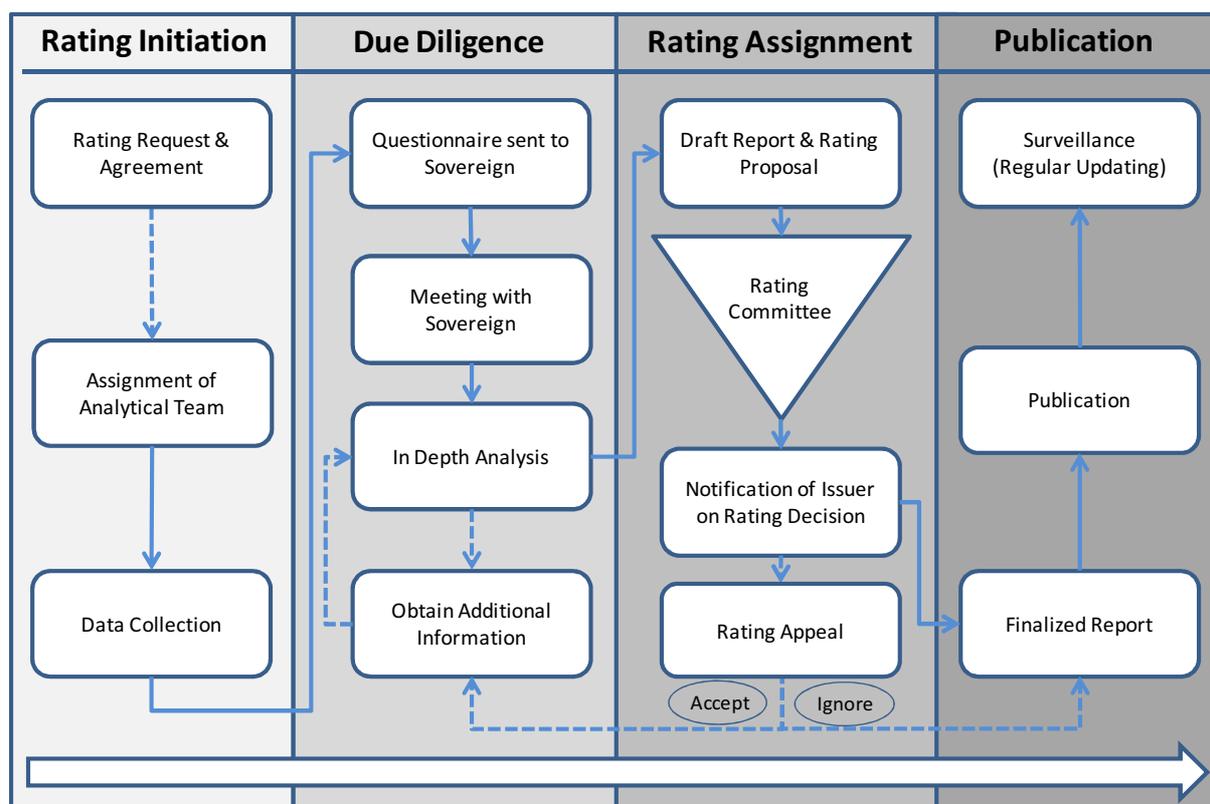
(h) R&I (Japan)



(i) S&P (USA)



Appendix A5: Schematic illustration of the credit rating process (sovereign ratings)



The usual process that leads to a rating assignment can be grouped into four phases. In the first phase, *Rating Initiation*, the agency enters into an official agreement with the sovereign (in case of a solicited rating), assigns analysts to that particular sovereign, and collects data. In the second phase, which we refer to as *Due Diligence*, the agency gathers further information by collaborating with the sovereign, which are subsequently analyzed. In the third phase, *Rating Assignment*, the analysts draft a preliminary report for the rating committee, which has the final say on the decision. The rating committee consists of several analysts, augmented with at least one senior director with managerial authority, who serves as chairperson. After the committee’s decision, the sovereign is notified and has the opportunity to appeal. Most agencies approve such a request if the sovereign provides new or additional information that the agencies consider relevant. In the final phase, *Rating Publication*, the agency publishes the final report and the corresponding rating and continuously monitors the sovereign’s economic and political situation.

Appendix A6: Comparison of credit rating process (sovereign ratings)

Agency	CI	Dagong	DBRS	Feri	Fitch	JCR	Moody's	R&I	S&P
Home country (location)	Cyprus	China	Canada	Germany	USA	Japan	USA	Japan	USA
Home country (ownership)	Kuwait	China	Canada	Germany	France	Japan	USA	Japan	USA
Does the agency provide - solicited sovereign ratings? - unsolicited sovereign rating?	No Yes	Yes Yes	Yes Yes	No Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes
How long does a typical rating process take?	Unspecified	Unspecified	No information	10-30 days	30-60 days	60 days	60-90 days	Unspecified	30-45 days
How many analysts are involved in the rating process (per sovereign rating)?	One analyst	Project team (several analysts)	One analyst	One/two analysts and compliance officer	Two analysts	Two analysts	One analyst	Several analysts	Two analysts
Does the agency collect and analyze publically available data?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the agency make an official cooperation offer to the sovereign?	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Does an interview with the sovereign take place (in case of solicited ratings)?	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Who is part of the rating committee responsible for the final rating decision?	Several analysts and chairperson	Project team, external experts and compliance officer	No information	Three or four	At least five analysts and senior director	At least four	Unspecified	Several analysts and chairperson	Five to seven analysts and chairperson
Are the issuers notified prior to the publication of the rating?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Can sovereigns appeal against a rating publication?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Surveillance: Does the agency follow a regular updating interval?	Quarterly or semi-annually	At least annually	Monthly	Monthly	At least annually	Monthly	Quarterly	Unspecified	Unspecified
Who initiates an update?	Lead analyst	Project team	Surveillance analysts	Lead analyst(s) and rating committee	All analysts	Unspecified	Lead analyst	Lead analyst	All analysts

Sources: Personal communication with Moody's Client Services (28 February 2013, 4 March 2013, 22 March 2013, 25 March 2013), Feri EuroRating Services AG (14 March 2013, 21 March 2013), Dagong Global Credit Rating (5 April 2013, 3 June 2013), and internet research (see Online Appendix G1 for a detailed list of sources).

Appendix B1: Construction of the sovereign rating database

Data on sovereign ratings assigned by CI, Dagong, DBRS, JCR, Moody's, R&I, and S&P have been obtained from Bloomberg. Hence, everybody with access to Bloomberg can replicate the dataset easily. We downloaded the data in late September 2012 in the Princeton University Library and updated all information on June 28, 2013.¹

The approach was the following:

(1) To access the data, we logged on to a Bloomberg terminal and typed "CSDR." The variables selected are *Foreign Long Term* for CI, *FC LT Sovereign Ratings* for Dagong, *Foreign Currency LT Debt* for DBRS, JCR, Moody's and S&P, and *Foreign Curr Issuer Rtg* for R&I. We followed Bloomberg and collected Moody's foreign currency issuer rating if Moody's had not assigned a foreign-currency debt rating to a country. We took screenshots for each page displaying sovereign ratings.

Kingdom of Belgium

Fitch Foreign Currency LT Debt

Rating	Watch	Effective
AA		01/27/2012
AA+	+-	12/16/2011
AA+		05/02/2006
AA		06/17/2002
AA-		12/16/1998
AA+		08/10/1994

MOODY'S

- 1) Outlook
- 2) CC LT Foreign Bar
- 3) CC LT Foreign Cur
- 4) CC ST Foreign Bar
- 5) CC ST Foreign Cur
- 6) Long Term Rating
- 7) LC Curr Issuer Ra
- 8) FC Curr Issuer Ra
- 9) Foreign Currency
- 10) Local Currency LT
- 11) Local Currency ST
- 12) STANDARD & POOF
- 13) Outlook
- 14) Foreign Currency
- 15) Local Currency LT
- 16) Foreign Currency
- 17) Local Currency ST Debt

STABLE
AA
AA
AA
AA
F1+
F1+
NEG
AAH
AAH
R-1H
R-1H

Up / Down / No Change / Initial

Close

A-1+u

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2013 Bloomberg Finance L.P.
SN 251633 EDT GMT-4:00 H435-2202-0 27-Jun-2013 17:41:32

Example of screenshot for Fitch Foreign Currency Long Term Debt ratings.

¹ The ratings from Feri and Fitch have been obtained from the companies directly.

(2) Using these screenshots, two student assistants entered the letter-ratings into a database. The double coding was used to identify and correct typing errors.

(3) The three-letter ratings were translated to numerical values according to the 21-point scale presented in Appendix A1.

(4) We checked the data for potential errors, for example by examining rating changes by more than two steps. Two obvious mistakes in the R&I data from Bloomberg have been corrected after e-mail correspondence with the agency's chief analyst: (i) India received a "BBB+" rating on 15 June 1998, and a "BBB" rating on 18 November 1998, 20 December 1999, and 30 January 2001, (ii) Ukraine received an "BB-" rating on 18 July 1998, a "B" rating on 28 August 1998, and a "B-" rating on 28 September 1999.

Appendix B2: Date of first and last rating assigned to sovereigns by agency (01/1990-06/2013)

Country	CI	Dagong	DBRS	Feri	Fitch	JCR	Moody's	R&I	S&P
Albania				06/1999-06/2013			11/2010-06/2013		04/2010-06/2013
Andorra									05/2003-06/2013
Angola		05/2013-06/2013			05/2010-06/2013		05/2010-06/2013		05/2010-06/2013
Argentina		07/2010-06/2013	09/2007-06/2013	06/1999-06/2013	05/1997-06/2013		01/1990-06/2013		08/1993-06/2013
Armenia					05/2006-06/2013		07/2006-06/2013		
Aruba					04/2002-06/2013				05/2008-06/2013
Australia		07/2010-06/2013		06/1999-06/2013	01/1996-06/2013	05/1998-06/2013	01/1990-06/2013	12/1999-06/2013	01/1990-06/2013
Austria		10/2010-06/2013	06/2011-06/2013	06/1999-06/2013	08/1994-06/2013		01/1990-06/2013	11/1999-09/2005	01/1990-06/2013
Azerbaijan					07/2000-06/2013		09/2006-06/2013		12/2008-06/2013
Bahamas							04/1997-06/2013		12/2003-06/2013
Bahrain	06/2008-06/2013				02/2000-06/2013		08/2002-06/2013		07/2002-06/2013
Bangladesh							04/2010-06/2013		04/2010-06/2013
Barbados							12/1994-06/2013		12/1999-06/2013
Belarus		04/2012-06/2013					07/2010-06/2013		08/2007-06/2013
Belgium		07/2010-06/2013	11/2011-06/2013	06/1999-06/2013	08/1994-06/2013	04/1998-06/2013	01/1990-06/2013	12/2000-06/2013	12/1992-06/2013
Belize							01/1999-06/2013		08/2000-06/2013
Benin					09/2004-01/2012				12/2003-06/2013
Bermuda					08/1994-06/2013		07/2010-06/2013		06/1995-06/2013
Bolivia		05/2013-06/2013			03/2004-06/2013		05/1998-06/2013		07/1998-06/2013
Bosnia & Herzegovina							04/2006-06/2013		12/2008-06/2013
Botswana		04/2013-06/2013					03/2001-06/2013		04/2001-06/2013
Brazil		07/2010-06/2013	07/2006-06/2013	06/1999-06/2013	12/1994-06/2013	06/2007-06/2013	01/1990-06/2013	04/1998-06/2013	11/1994-06/2013
Bulgaria				06/1999-06/2013	04/1998-06/2013	10/2002-06/2011	09/1996-06/2013		11/1998-06/2013
Burkina Faso									03/2004-06/2013
Cambodia	07/2010-06/2013						05/2007-06/2013		04/2007-06/2013
Cameroon					09/2003-06/2013				11/2003-06/2013
Canada		07/2010-06/2013	01/2000-06/2013	06/1999-06/2013	08/1994-06/2013	07/2000-06/2013	01/1990-06/2013	03/2000-09/2012	01/1990-06/2013
Cape Verde					08/2003-06/2013				12/2008-06/2013
Cayman Islands		02/2012-06/2013					11/2009-06/2013		
Chile		07/2010-06/2013	05/2006-06/2013	06/1999-06/2013	11/1994-06/2013		05/1999-06/2013		12/1992-06/2013
China	10/2007-06/2013	07/2010-06/2013		06/1999-06/2013	12/1997-06/2013		01/1990-06/2013	04/1998-06/2013	12/1992-06/2013
Colombia		03/2012-06/2013	12/2006-06/2013	06/1999-06/2013	08/1994-06/2013		08/1993-06/2013	12/2012-06/2013	06/1993-06/2013
Cook Is									01/1998-06/2013
Costa Rica					05/1998-06/2013		05/1997-06/2013		07/1997-06/2013
Croatia		04/2012-06/2013		06/1999-06/2013	01/1997-06/2013		01/1997-06/2013	04/1998-06/2013	01/1997-06/2013
Cuba							07/1999-06/2013		
Cyprus	11/2007-06/2013				02/2002-06/2013		01/1998-06/2013		02/1994-06/2013
Czech Rep	09/2008-06/2013	11/2011-06/2013		06/1999-06/2013	08/1995-06/2013	05/2001-06/2013	06/1998-06/2013	04/1998-06/2013	07/1993-06/2013
Denmark		07/2010-06/2013	09/2012-06/2013	06/1999-06/2013	08/1994-06/2013	10/2001-06/2013	01/1990-06/2013	05/2001-06/2013	01/1990-06/2013
Dominican Rep					08/2003-06/2013		05/2001-06/2013		02/1997-06/2013
Ecuador		07/2010-06/2013			11/2002-06/2013		07/1997-06/2013		07/2000-06/2013
Egypt	09/2007-06/2013	07/2010-06/2013		06/1999-06/2013	08/1997-06/2013		07/2001-06/2013		01/1997-06/2013
El Salvador					09/1996-06/2013		02/2002-06/2013		08/1996-06/2013
Estonia		07/2010-06/2013		06/1999-06/2013	09/1997-06/2013		06/2002-06/2007		12/1997-06/2013
Fiji							08/2006-06/2013		08/2006-06/2013
Finland		12/2010-06/2013	08/2012-06/2013	06/1999-06/2013	08/1994-06/2013	02/2001-06/2013	01/1990-06/2013	05/2001-06/2013	01/1990-06/2013
France		07/2010-06/2013	05/2011-06/2013	06/1999-06/2013	08/1994-06/2013	11/2000-06/2013	02/1992-06/2013	03/2000-06/2013	01/1990-06/2013

Country	CI	Dagong	DBRS	Feri	Fitch	JCR	Moody's	R&I	S&P
Gabon					10/2007-06/2013				11/2007-06/2013
Gambia					11/2002-07/2007				
Georgia					07/2007-06/2013		10/2010-06/2013		12/2005-06/2013
Germany		07/2010-06/2013	06/2011-06/2013	06/1999-06/2013	08/1994-06/2013	11/2000-06/2013	04/1993-06/2013	03/2000-06/2013	01/1990-06/2013
Ghana		04/2013-06/2013			12/2003-06/2013		12/2012-06/2013		09/2003-06/2013
Greece	02/2010-06/2013	07/2010-06/2013		06/1999-06/2013	11/1995-06/2013		05/1994-06/2013	06/2000-06/2013	12/1992-06/2013
Grenada									03/2002-06/2013
Guatemala					02/2006-06/2013		08/1997-06/2013		10/2001-06/2013
Honduras							03/2013-06/2013		10/2008-06/2013
Hong Kong (China)	11/2007-06/2013	10/2010-06/2013		06/1999-06/2013	08/1994-06/2013	04/1998-06/2013	07/2004-06/2013	04/1998-06/2013	12/1992-06/2013
Hungary	11/2008-06/2013	07/2010-06/2013		06/1999-06/2013	04/1996-06/2013	11/1999-06/2013	12/1993-06/2013	11/2000-06/2013	04/1992-06/2013
Iceland		07/2010-06/2013			02/2000-06/2013		01/1990-06/2013	06/2007-09/2012	12/1992-06/2013
India	02/2007-06/2013	07/2010-06/2013	06/2007-06/2013	06/1999-06/2013	03/2000-06/2013	06/1998-06/2013	07/1999-06/2013	06/1998-06/2013	12/1992-06/2013
Indonesia	02/2009-06/2013	07/2010-06/2013		06/1999-06/2013	06/1997-06/2013	10/2002-06/2013	03/1994-06/2013	04/1998-06/2013	12/1992-06/2013
Iran	02/2010-06/2013				05/2002-04/2008				
Ireland		12/2010-06/2013	07/2010-06/2013	06/1999-06/2013	10/1994-06/2013		01/1990-06/2013	04/1998-06/2013	01/1990-06/2013
Isle of Man							04/2003-06/2013		02/2000-06/2013
Israel		07/2010-06/2013		06/1999-06/2013	11/1995-06/2013		12/1995-06/2013		12/1992-06/2013
Italy		07/2010-06/2013	02/2011-06/2013	06/1999-06/2013	08/1994-06/2013	04/1998-06/2013	01/1990-06/2013	04/1998-06/2013	12/1992-06/2013
Jamaica					08/2006-06/2013		03/1998-06/2013		11/1999-06/2013
Japan		07/2010-06/2013		06/1999-06/2013	08/1994-06/2013	10/2000-06/2013	12/2002-06/2013	03/2000-06/2013	01/1990-06/2013
Jordan	10/2008-06/2013	05/2013-06/2013					11/2010-06/2013		10/1995-06/2013
Kazakhstan		07/2010-06/2013			11/1996-06/2013		11/1996-05/2007		11/1996-06/2013
Kenya		12/2010-06/2013			12/2007-06/2013		11/2012-06/2013		09/2006-06/2013
Korea	06/2007-06/2013	07/2010-06/2013		06/1999-06/2013	06/1996-06/2013	04/1998-06/2013	04/1998-06/2013	04/1998-06/2013	01/1990-06/2013
Kuwait	04/2007-06/2013	05/2012-06/2013			12/1995-06/2013		07/1999-06/2013		10/1997-06/2013
Latvia	11/2008-06/2013	10/2010-06/2013		06/1999-06/2013	06/1998-06/2013		08/1999-06/2013	09/2008-06/2013	01/1997-06/2013
Lebanon					02/1997-06/2013		02/1997-06/2013	04/1998-01/2011	02/1997-06/2013
Lesotho					09/2002-06/2013				
Libya					05/2009-04/2011				03/2009-03/2011
Liechtenstein									12/1996-06/2013
Lithuania		03/2011-06/2013		06/1999-06/2013	01/1997-06/2013		09/1996-06/2013		06/1997-06/2013
Luxembourg		07/2010-06/2013			08/1994-06/2013		07/1999-06/2013	12/2000-09/2012	04/1994-06/2013
Macau	09/2008-06/2013	10/2010-06/2013			05/2013-06/2013		07/1999-06/2013		
Macedonia					11/2005-06/2013	09/2007-01/2012			08/2005-06/2013
Malawi					05/2003-08/2009				
Malaysia	09/2006-06/2013	07/2010-06/2013		06/1999-06/2013	08/1998-06/2013	10/2001-06/2013	01/1990-06/2013	04/1998-06/2013	09/1990-06/2013
Mali					04/2004-12/2009				05/2004-07/2008
Malta					07/1996-06/2013		07/2000-06/2013		03/1994-06/2013
Mauritius		07/2012-06/2013					03/1996-10/2000		
Mexico		07/2010-06/2013	07/2006-06/2013	06/1999-06/2013	08/1995-06/2013	06/1998-06/2013	02/1991-06/2013	11/2000-06/2013	07/1992-06/2013
Moldova					07/1998-12/2009		01/1997-09/2009		
Mongolia		07/2010-06/2013			07/2005-06/2013		10/2005-06/2013		12/1999-06/2013
Montenegro							03/2008-06/2013		12/2004-06/2013
Montserrat									10/2004-06/2013
Morocco	10/2007-06/2013	10/2010-06/2013			04/2007-06/2013		07/1999-06/2013	05/2000-12/2005	03/1998-06/2013
Mozambique					07/2003-06/2013				07/2004-06/2013
Namibia					12/2005-06/2013		09/2011-06/2013		
Netherlands		07/2010-06/2013	05/2011-06/2013	06/1999-06/2013	08/1994-06/2013	02/2001-06/2013	02/2012-06/2013	12/2000-06/2013	12/1992-06/2013

Country	CI	Dagong	DBRS	Feri	Fitch	JCR	Moody's	R&I	S&P
New Zealand		07/2010-06/2013		06/1999-06/2013	03/2002-06/2013		01/1990-06/2013	12/1999-09/2012	01/1990-06/2013
Nicaragua							07/1999-06/2013		
Nigeria		07/2010-06/2013			01/2006-06/2013		11/2012-06/2013		02/2006-06/2013
Norway		07/2010-06/2013	03/2012-06/2013	06/1999-06/2013	03/1995-06/2013	02/2000-06/2013	01/1990-06/2013	05/2001-06/2013	01/1990-06/2013
Oman	04/2008-06/2013						07/1999-06/2013		02/1996-06/2013
Pakistan	10/2008-06/2013	07/2010-06/2013		06/1999-06/2013			11/1994-06/2013		11/1994-06/2013
Panama		07/2012-06/2013			09/1998-06/2013		01/1997-06/2013		01/1997-06/2013
Papua New Guinea					01/1999-01/2010		07/1999-06/2013		01/1999-06/2013
Paraguay					01/2013-06/2013		07/1999-06/2013		10/1995-06/2013
Peru		10/2010-06/2013	10/2007-06/2013	06/1999-06/2013	10/1999-06/2013		07/1999-06/2013		12/1997-06/2013
Philippines	12/2006-06/2013	07/2010-06/2013		06/1999-06/2013	07/1999-06/2013	04/1998-06/2013	07/1993-06/2013	04/1999-06/2013	06/1993-06/2013
Poland	12/2007-06/2013	07/2010-06/2013		06/1999-06/2013	10/1995-06/2013	05/2002-06/2013	06/1995-06/2013	07/2000-06/2013	06/1995-06/2013
Portugal		07/2010-06/2013	11/2010-06/2013	06/1999-06/2013	08/1994-06/2013	01/2000-06/2013	01/1990-06/2013	06/2000-06/2013	12/1992-06/2013
Qatar	01/2008-06/2013						09/1999-06/2013		02/1996-06/2013
Romania	11/2008-06/2013	07/2010-06/2013		06/1999-06/2013	03/1996-06/2013	04/1998-06/2013	06/1997-06/2013		04/1997-06/2013
Russia		07/2010-06/2013		06/1999-06/2013	10/1996-06/2013	03/2007-06/2013	11/1996-06/2013		10/1996-06/2013
Rwanda					12/2006-06/2013				12/2011-06/2013
Saint Vincent and the Grenadines							03/2008-06/2013		
San Marino					01/2001-06/2013				
Saudi Arabia	02/2008-06/2013	07/2010-06/2013			11/2004-06/2013		07/1999-06/2013		07/2003-06/2013
Senegal							03/2011-06/2013		12/2000-06/2013
Serbia				01/2005-06/2013	05/2005-06/2013				11/2004-06/2013
Seychelles					02/2010-06/2013				09/2006-08/2009
Singapore	08/2002-06/2013	07/2010-06/2013		06/1999-06/2013	11/1998-06/2013	04/1998-06/2013	07/1999-06/2013	04/1998-06/2013	12/1992-06/2013
Slovak Republic	09/2008-06/2013			06/1999-06/2013	08/1996-06/2013	03/2001-06/2013	05/1995-06/2013	04/1998-06/2013	02/1994-06/2013
Slovenia	12/2006-06/2013			06/1999-06/2013	05/1996-06/2013	04/2005-06/2013	05/1996-06/2013	11/2000-06/2013	05/1996-06/2013
South Africa	01/2006-06/2013	07/2010-06/2013			09/1994-06/2013		10/1994-06/2013	04/1998-06/2013	10/1994-06/2013
Spain		07/2010-06/2013	10/2010-06/2013	06/1999-06/2013	08/1994-06/2013	06/2006-06/2013	01/1990-06/2013	07/1998-06/2013	01/1990-06/2013
Sri Lanka	12/2006-06/2013	03/2011-06/2013			12/2005-06/2013		07/2011-06/2013		12/2005-06/2013
Suriname					06/2004-06/2013		02/2004-06/2013		11/1999-06/2013
Sweden		10/2010-06/2013	04/2012-06/2013	06/1999-06/2013	08/1994-06/2013		01/1990-06/2013	03/1999-06/2013	01/1990-06/2013
Switzerland		07/2010-06/2013	07/2011-06/2013	06/1999-06/2013	08/1994-06/2013		01/1990-06/2013		12/1992-06/2013
Taiwan	11/2003-06/2013	10/2010-06/2013		06/1999-06/2013	11/2001-06/2013		07/1999-06/2013	12/1998-06/2013	12/1992-06/2013
Thailand	04/2005-06/2013	07/2010-06/2013		06/1999-06/2013	05/1998-06/2013	04/1998-06/2013	01/1990-06/2013	04/1998-06/2013	01/1990-06/2013
Trinidad & Tobago							02/1993-06/2013		03/1996-06/2013
Tunisia	09/2004-06/2013	10/2010-06/2013			09/1995-06/2013		04/2003-06/2013	04/1998-06/2013	04/1997-06/2013
Turkey	07/2005-06/2013	07/2010-06/2013		06/1999-06/2013	08/1994-06/2013	04/1998-06/2013	05/1992-06/2013	09/2012-06/2013	04/1994-06/2013
Turkmenistan					01/1998-02/2005		07/1999-09/2010		
Uganda					03/2005-06/2013				12/2008-06/2013
Ukraine		07/2010-06/2013		06/1999-06/2013	06/2001-06/2013		02/1998-06/2013	04/1998-06/2013	12/2001-06/2013
United Arab Emirates	05/2007-06/2013						10/2000-06/2013	01/2011-06/2013	07/2007-06/2013
United Kingdom		07/2010-06/2013	07/2010-06/2013	06/1999-06/2013	08/1994-06/2013	11/2000-06/2013	01/1990-06/2013	03/2000-06/2013	01/1990-06/2013
United States		07/2010-06/2013	09/2011-06/2013	06/1999-06/2013	08/1994-06/2013	11/2000-06/2013	01/1990-06/2013	03/2000-06/2013	09/1991-06/2013
Uruguay		12/2010-06/2013	02/2008-06/2013		01/1995-06/2013		10/1993-06/2013	04/1998-06/2013	02/1994-06/2013
Venezuela		07/2010-06/2013			09/1997-06/2013		01/1990-06/2013		01/1990-06/2013
Viet Nam	09/2008-06/2013	07/2010-06/2013			06/2002-06/2013		04/1997-06/2013	02/2008-06/2013	05/2002-06/2013
Zambia					03/2011-06/2013		11/2012-06/2013		03/2011-06/2013

Note: Each cell lists the first end last month in which a particular agency has assigned a rating to a particular country. There may be gaps in between.

Appendix B3: Pair-wise correlation of sovereign ratings from different agencies (1990-2013)

	CI	Dagong	DBRS	Feri	Fitch	JCR	Moody's	R&I	S&P
CI	1.000								
Dagong	0.918	1.000							
DBRS	.	0.902	1.000						
Feri	0.784	0.888	0.851	1.000					
Fitch	0.957	0.932	0.977	0.794	1.000				
JCR	0.974	0.846	0.965	0.841	0.971	1.000			
Moody's	0.956	0.937	0.975	0.805	0.981	0.962	1.000		
R&I	0.927	0.918	0.982	0.837	0.973	0.981	0.972	1.000	
S&P	0.966	0.938	0.986	0.815	0.987	0.970	0.981	0.971	1.000

Note: No correlation between CI and DBRS is displayed since there is not enough overlap between the sovereigns rated by both agencies.

Appendix B4: Analytical key factors of sovereign rating assignments

Agency Indicators	CI Cyprus (Kuwait)	Dagong China	DBRS Canada	Feri Germany	Fitch USA (France)	JCR Japan	Moody's USA	R&I Japan	S&P USA
Domestic economic performance	-Economic growth prospects	-Economic strength -Economic structure -Total GDP	-Historical growth and prospects -Inflation -Demographics and social structure	-Economic growth -Price stability	-Demographic, educational and structural factors -Labor market analysis -Structure of output and trade -Dynamism of the private sector -Balance of supply and demand	-Industrial structure -Fundamentals of economic development -Growth potential -Economic achievements	-GDP per capita -Diversification and size -Long-term trends	-Economic fundamentals -Growth	-Economic structure and growth prospects
Political and institutional performance	-Level of political risk	-Political risks -Institutional strength	-Political environment -Government policy management	-Rule of law -Economic freedom -Political condition	-Foreign investment policy -Policies and the state -Macroeconomic policy	-Political and social stability -Policy effectiveness and recognition -State of governance	-Rule of law -Governance -Transparency -Regulatory developments	-Socio-political fundamentals -Policy management capacity	-Institutional effectiveness -Political risks
Financial stability and fiscal performance	-Sustainability of public finances	-Financial risks -Governments debt repayment capability -Banking system	-Expenditure -Revenues -Fiscal balance -Budget planning -Monetary policy -Financial system stability	-Public finance -Capital market structure	-Banking and finance -Analysis of medium-term growth constraints	-Trends in the fiscal balance -Financial system -Framework of financial regulations and supervision	-Government balance sheet	-Fiscal conditions -Funding structure	-Fiscal performance and flexibility -Debt burden -Monetary flexibility
External performance	-Country's external growth position	-International reserves -External debt -Short-term foreign debt -Currency reserve system	-International economic integration -External debt & liquidity	-Net external position -Current account -Capital account	-External assets -External liabilities -International position -Balance of payments	-External debt structure -Trends in balance of payments -Management of foreign exchange reserves	-Financial risk (external debts) -Susceptibility to external risk -Balance of payments		-External liquidity -International investment position

Sources: Personal communication with Moody's Client Services (28 February 2013, 4 March 2013, 22 March 2013, 25 March 2013), Feri EuroRating Services AG (14 March 2013, 21 March 2013), Dagong Global Credit Rating (5 April 2013, 3 June 2013), and internet research (see Online Appendix G1 for detailed list of sources).

Appendix B5: Variables, definitions and sources

Variable	Definition	Source
Dependent variable		
Sovereign rating	Sovereign rating on a 21-point scale (see Appendix A1 and B1 for details; monthly average)	Bloomberg; Feri (via e-mail); Fitch (http://www.fitchratings.com)
Variables of interest		
Same country	1 if rated country is the country where the headquarters of the rating agency is located [alternative: 1 if rated country is the country of the rating agency's main shareholders]	Own construction
Export interests	Home-country exports (in % of total home-country exports), 3-year average, lag	UN Comtrade via WITS (https://wits.worldbank.org/)
Bank exposure	Overall claims of home-country banks to the rated country (in % of home country's total foreign claims; all sectors; private and public banks; guarantees extended and credit commitments; all on ultimate risk basis), 1-year average, lag	Bank for International Settlements (BIS) (http://www.bis.org/statistics/consstats.htm)
Geopolitical alignment (UN)	Voting alignment between home country and rated country in the United Nations General Assembly (in % of total votes), 3-year average, lag	Strezhnev and Voeten (2012)
US military interests (aid)	Military aid provided by the United States to the rated country (in % of US total military aid), 3-year average, lag	USAID (http://gbk.eads.usaidallnet.gov)
Common language	1 if common official or primary language in home country and rated country	CEPII (Mayer and Zignago 2011)
Cultural distance (language)	Language dissimilarity between home and rated country (values between 0 and 100)	Kolo (2012)
Cultural distance (ethno-racial)	Ethno-racial dissimilarity between home and rated country (values between 0 and 100)	Kolo (2012)
Control variables: Domestic Economic Performance		
GDP per capita* [#]	Log GDP per capita (constant 2000 US\$), 1-year average, lag	World Development Indicators 2014 (http://data.worldbank.org/)
GDP growth* [#]	GDP growth (annual %), 3-year average, lag	World Development Indicators 2014 (http://data.worldbank.org/)
GDP growth squared [#]	GDP growth (annual %) squared, 3-year average, lag	World Development Indicators 2014 (http://data.worldbank.org/)
Inflation* [#]	Inflation, consumer prices (annual %), 3-year average, lag	World Development Indicators 2014 (http://data.worldbank.org/)
Natural resources*	Sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents (in % of GDP), 3-year average lag	World Development Indicators 2014 (http://data.worldbank.org/)
Population	Log total population size, 1-year average, lag	World Development Indicators 2014 (http://data.worldbank.org/)
Control variables: Financial Stability and Fiscal Performance		
Change in government debt [#]	Change in gross government debt-to-GDP ratio (in %), 3-year average, lag	IMF Historical Public Debt Database 2013 (Abbas et al. 2010)
Government debt	Gross government debt-to-GDP ratio (in %), 3-year average, lag	IMF Historical Public Debt Database 2013 (Abbas et al. 2010)
Default (since 1970) [#]	1 if country has experienced a sovereign debt crisis or restructuring since 1970	Laeven and Valencia (2012)
Default (last 5 years)*	1 if country has experienced a sovereign debt crisis or restructuring in the last five years	Laeven and Valencia (2012)
Control variables: External Performance		
Trade openness*	Sum of exports and imports of goods and services (in % of GDP), 3-year average lag	World Development Indicators 2014 (http://data.worldbank.org/)
Current account balance* [#]	Sum of net exports of goods and services, net primary income, and net secondary income (% of GDP), 3-year average, lag	World Development Indicators 2012, 2014 (http://data.worldbank.org/)
External debt* [#]	Debt owed to nonresidents repayable in foreign currency, goods, or services (% of GDP), 3-year average, lag (all missing values set to zero if rated country is at least an upper-middle-income country, see Afonso 2003 and Hill et al. 2010 for a similar approach)	World Development Indicators 2012, 2014 (http://data.worldbank.org/)

Appendix B5 (continued): Variables, definitions and sources

Control variables: Political and Institutional Performance			
Polity*	Regime authority on a 21-point scale ranging from -10 (hereditary monarchy) to +10 (consolidated democracy), 3-year average, lag	Polity IV dataset version 2012 (Marshall et al. 2013)	
Election*	1 if presidential elections (for presidential or assembly-elected systems) or parliamentary elections (for parliamentary systems) were held in rated country during the last 12 months (DPI variables DATEEXEC, DATELEG and SYSTEM)	Database of Political Institutions 2012 (Beck et al. 2001)	
Years in office*	Number of years the chief executive has been in office as of January 1 st , lag (DPI variable YRSOFFC; some errors corrected), 1-year average, lag	Database of Political Institutions 2012 (Beck et al. 2001)	
Left government*	1 if the chief executive's party is defined as communist, socialist, social democratic, or left-wing, 1-year average, lag	Database of Political Institutions 2012 (Beck et al. 2001)	
Rule of law	Assessment of both the strength and impartiality of the legal system and of popular observance of the law on a 6-point scale, 1-year average, lag	International Country Risk Guide	(http://www.prsgroup.com/ICRG.aspx)
Absence of internal conflict	Assessment of both political violence in the country and its actual or potential impact on governance on a 12-point scale, 1-year average, lag	International Country Risk Guide	(http://www.prsgroup.com/ICRG.aspx)
Absence of external conflict	Assessment of the risk to the incumbent government from foreign action on a 12-point scale, 1-year average, lag	International Country Risk Guide	(http://www.prsgroup.com/ICRG.aspx)
Absence of military in politics	Assessment of the degree of military participation in politics on a 6-point scale, 1-year average, lag	International Country Risk Guide	(http://www.prsgroup.com/ICRG.aspx)
Euro area	1 if rated country is a member of the euro area	Own construction	
Other variables			
Office in rated country	1 if an agency has a subsidiary/office in a rated country	Own construction, gathered from company websites	
Informational transparency	Index of informational transparency based on indicators of (i) the quantum of information released by governments, (ii) the quality of that information, and (iii) the information infrastructure of countries that enables dissemination of that information	Williams (forthcoming)	
Government stability	Assessment of both the government's ability to carry out its declared program(s) and its ability to stay in office on a 12-point scale, 1-year average, lag	International Country Risk Guide	(http://www.prsgroup.com/ICRG.aspx)
Solicitation status	1 if a rated country receives an unsolicited rating	See Appendix A3	
Same legal origin	1 if home country and rated country share the same legal origin	Treisman (2007)	
Bilateral trust	Trust level of a representative citizen towards a randomly selected individual of the rated country (based on the following Eurobarometer question on a 4-point scale: "I would like to ask you a question about how much trust you have in people from various countries. For each, please tell me whether you have a lot of trust, some trust, not very much trust, or no trust at all.")	Yu et al. (2015)	

Notes: * - variable included in Archer et al. (2007), # - variable included in Hill et al. (2010). The next page provides a detailed description of the computation of lagged moving averages of the explanatory variables. Since the data on *informational transparency* end in 2010, we carry forward the 2010 value to the end of our dataset assuming that a country's transparency does not change significantly over time. The download dates of the data sets are the following: International Country Risk Guide: 12 November 2012; World Bank Development Indicators: 29 April 2014; BIS: 2 May 2014; USAID: 2 May 2014; WITS: 2 May 2014.

Appendix B5 (continued): Variables, definitions and sources

We lag all time-varying variables for two reasons. First, the process of incorporating new data and political developments takes some time. Second, agencies have an incentive not to change their ratings too often, as very frequent changes would create a poor impression of their long-term analytical skills. On average, agencies would rather wait for bad (or good) news to be confirmed by other sources than to react immediately to changes in their indicators. In most cases, we compute the moving average of each variable over the previous 12 months. In other cases, in particular for more volatile variables capturing the current economic situation, we calculate the average over the last 36 months to cancel out pure business-cycle effects and random short-term fluctuations that should not influence long-term debt repayment abilities (see Block and Vaaler 2004 for a similar approach).

Computation of moving averages: We model a rating methodology in which agencies update their belief over the course of a year by gradually incorporating new information. The “1-year average, lag,” as indicated in the table above, refers to the moving average of each variable over the previous 12 months:

$$x_{j,i,t} = \frac{1}{12} \sum_{t=-12}^{-1} x_{i,j,t} ,$$

where x is the respective explanatory variable, j stands for the home country, i for the rated country, and t is time in monthly frequency in the format MM/YYYY. In cases where the observed variable is only available at a yearly frequency, it becomes a weighted average of the existing information and new information. This implies that, over the course of a year, the weight of “new” information gradually increases. We make the implicit assumption that the final, actual value published for a particular year is a reliable proxy for the information that was available to the agencies during that year, for example, from news and other information sources.

For example, assume an agency wants to assess the per-capita GDP of country i in August 2011. Per-capita GDP data by the World Bank is only available on a yearly basis, i.e., for the year 2010. However, within a year there will be new information that indicates whether a country’s per-capita GDP has increased, stayed constant or decreased. Hence, it makes sense for an agency to assess per-capita GDP within a year as a weighted average of the verified information from 2010 and the updated but still unverified new information. We will thus compute the moving average of the “GDP p.c.” variable for August 2011 as follows:

$$GDP\ p.c._{i,07/2011} = \frac{1}{12} \sum_{t=08/2010}^{07/2011} GDP\ p.c._{i,t} = \frac{5}{12} GDP\ p.c._{i,2010} + \frac{7}{12} GDP\ p.c._{i,2011}$$

We use a longer lag structure for more volatile variables such as GDP growth and inflation (as indicated by “3-year average, lag” in the table above). This means that we calculate the average over the last 36 months to cancel out pure business-cycle effects and random short-term fluctuations that should not influence long-term debt repayment abilities (see again Block and Vaaler 2004). The formula then becomes

$$x_{i,j,t} = \frac{1}{36} \sum_{t=-36}^{-1} x_{j,i,t}$$

Appendix B6: Descriptive statistics

Variable	Observations	Mean	Std.dev.	Min.	Max.
Dependent variable					
Sovereign rating	75438	14.79	4.95	1	21
<i>between (n=550)</i>			4.86		
<i>within ($\bar{T}=137$ months)</i>			1.41		
Variables of interest					
Same country	75438	0.02	0.14	0	1
Export interests	73919	1.47	3.48	0	76.37
Bank exposure	37949	1.47	4.38	0	70.49
Geopolitical alignment (UN)	75048	52.97	23.67	12.33	95.72
US military interests (aid)	36923	1.21	5.6	0	51.24
Common language	75438	0.16	0.37	0	1
Cultural distance (language)	75438	89.63	14.84	3.23	100
Cultural distance (ethno-racial)	75438	76.79	24.87	1.1	100
Control variables: Domestic Economic Performance					
GDP per capita (log)	75438	9.09	1.33	5.33	11.38
GDP growth	75438	3.57	2.92	-7.75	28.65
GDP growth squared	75438	21.26	31.67	0	820.8
Inflation	75438	0.05	0.07	-0.03	0.94
Natural resources	75438	6.03	10.53	0	65.37
Population (log)	75438	16.76	1.61	12.91	21.02
Control variables: Financial Stability and Fiscal Performance					
Change in government debt	75438	3.35	5.1	-62.19	50.07
Government debt	75438	51.71	30.81	0	233.11
Default (since 1970)	75438	0.3	0.46	0	1
Default (last 5 years)	75438	0.05	0.23	0	1
Control variables: External Performance					
Trade openness	75438	87.66	58.27	14.49	428.14
Current account balance	75438	0.02	7.31	-29.87	40.5
External debt	75438	0.19	0.28	0	1.71
Control variables: Political and Institutional Performance					
Rule of law	75438	4.34	1.28	1	6
Polity	75438	16.83	5.15	0	20
Election	75438	0.23	0.42	0	1
Years in office	75438	5.11	5.48	1	46
Left government	75438	0.33	0.46	0	1
Absence of internal conflict	75438	9.83	1.59	3.38	12
Absence of external conflict	75438	10.37	1.22	4	12
Absence of military in politics	75438	4.69	1.36	0	6
Euro area	75438	0.14	0.35	0	1
Other variables					
Office in rated country	75438	0.24	0.43	0	1
Informational transparency	74124	69.88	9.40	32.00	88.00
Government stability	75438	8.33	1.61	2.17	12.00
Solicitation status	75438	0.38	0.48	0.00	1.00
Same legal origin	75438	0.18	0.38	0.00	1.00
Bilateral trust	2334	2.75	0.20	2.36	2.99

Notes: This table shows descriptive statistics for the full sample used in Online Appendix C2, column 1. It contains data from January 1990 to June 2013.

Appendix B7: Selection and detailed description of control variables

We build on the existing literature on the determinants of sovereign ratings to select our control variables. In their seminal paper, Cantor and Packer (1996) investigate the determinants of rating assignments by the US agencies Moody's and S&P. They identify a set of key variables, confirmed by Afonso (2003), which contains GDP per capita, GDP growth, past default experience, the inflation rate, external debt and an industrialized country dummy. However, the two agencies are found to put different weights on the individual factors. Similarly, Hill et al. (2010) find significant differences in the weights that Fitch, Moody's and S&P each assign to the various factors that determine sovereign ratings. By comparing the relevant factors, they identify a similar set of variables that are used as common determinants of sovereign ratings: GDP per capita, GDP growth and its square, past default experience, country risk rating, and risk premiums.

Other recent studies have focused on political factors as determinants of sovereign ratings. Starting with Archer et al. (2007), one strand of the literature examines a potential "democratic advantage" in sovereign ratings.² While Archer et al. (2007) do not find empirical support for the suggested positive link between ratings and democratic institutions, Beaulieu et al. (2012) find evidence for such a relationship when they account for the fact that democratic countries are more likely to have access to international capital markets. Disentangling electoral democracy and political constraints, Cordes (2012) shows that the existence of contested elections does not matter for rating outcomes, but countries that impose more political constraints on the executive do receive better ratings. Along similar lines, Biglaiser and Staats (2012) find that countries' rule of law, judicial independence and protection of property rights all improve a country's rating outcome. Overall, political factors have been shown to play an important, though smaller, role compared to economic fundamentals (Haque et al. 1998; Archer et al. 2007). Among the political factors that seem to be considered in agencies' rating decisions are political business cycles (Block and Vaaler 2004; Vaaler et al. 2006; Biglaiser and Staats 2012) and executive party tenure (Archer et al. 2007).

We build on these two strands of literature to control for those country-specific economic and political factors that should "objectively" determine sovereigns' ability and willingness to repay their debt. In order to do so, we combine the sets of variables employed in Archer et al. (2007), Cantor and

² The theory of the "democratic advantage" postulates that democracies have better access to credit than non-democracies as their leaders can be held liable (see Schultz and Weingast 2003).

Packer (1996) and Hill et al. (2010).³ For comparison, Online Appendix B4 lists all factors that the nine agencies communicate in official documents as those they would account for in their rating processes. All agencies use a combination of qualitative and quantitative indicators and most of the officially communicated factors overlap significantly across agencies.⁴ Comparing these factors with those employed in the literature, there seems to be a potential lack of control for conflict risks, which is why we add further variables in this category (see also Gaillard 2012, who refers to “event risk” as one factor applied by Moody’s). Overall, we employ control variables in the following four categories.

Domestic Economic Performance. First, we first employ the country’s logged *GDP per capita* (in constant 2000 US dollars). As Cantor and Packer (1996) argue, the ability of a government to repay its debt should increase with the sovereign’s potential tax base. Second, we control for the sovereign’s *GDP growth* rate (including a squared term) as an indicator for the sovereign’s future ability to service an existing debt burden (Cantor and Packer 1996). Third, *inflation* rate (based on consumer prices) is included as an indicator of structural problems in the sovereign’s finances (Cantor and Packer 1996). Fourth, we control for the sovereign’s endowment of natural resources. It could either be positively related with sovereign ratings as a sovereign’s revenues typically increase with natural resource abundance (Archer et al. 2007), but could also show up negatively, indicating a “resource curse” (see Jensen and Johnston 2011). Our variable *natural resources* measures total natural resource rents as a percentage of GDP. Finally, we add logged *population* size since larger

³ In contrast to Archer et al. (2007), we do not include variables that measure executive party tenure and undivided government since these variables contain too many missing values and would thus substantially reduce our sample size (data from Beck et al. 2001). We explicitly acknowledge that the agencies do in practice augment these third-party variables with their own forward-looking forecasts, which cannot be controlled for. However, we argue that these constitute outcome variables rather than controls and should thus be considered as “bad controls” in the terminology of Angrist and Pischke (2008). In fact, the forward-looking assessments should mostly be affected by potential cognitive biases, as they require and leave more room for subjectivity. These factors differ from the determinants of corporate ratings, e.g. due to differences in the possibility to enforce contract obligations.

⁴ These indicators differ from those employed in the corporate ratings literature, as the incentives and the legal frameworks differ strongly between corporations and sovereigns. For example, sovereign debt repayments can usually not be enforced, whereas lenders to corporations can bring proceedings in the national courts to enforce repayments.

countries on average possess a more diversified economy and are thus less affected by external shocks. All data are obtained from the World Bank's World Development Indicators (WDI).⁵

Financial Stability and Fiscal Performance. To account for a sovereign's fiscal performance, we control for a country's gross government debt-to-GDP ratio (*government debt*) and its change over time (*change in government debt*). Information stems from the IMF's Historical Debt Database (Abbas et al. 2010). As Cantor and Packer (1996: 39) note, "[a] large federal deficit absorbs private domestic savings and suggests that a government lacks the ability or will to tax its citizenry to cover current expenses or service its debt." We further add two binary variables to account for past experiences with defaults (*default*). As Archer et al. (2007) note, this is said to be the first factor bond raters look at when assessing the future probability of default. Our first variable accounts for long-term reputational costs and takes a value of one if the sovereign has experienced a sovereign debt crisis or restructuring since 1970 (see also Cantor and Packer 1996). In line with the findings of Borensztein and Panizza (2009), according to which such costs can be rather short-lived, the second variable takes a value of one if the sovereign has defaulted or restructured its debt in the last five years. Data on a country's history of debt crises come from the IMF (Laeven and Valencia 2012).

External Performance. We add three variables to account for a sovereign's external performance. *Trade openness*, i.e., the sum of the rated country's exports and imports, and *current account balance* are both included as a share of GDP. Both are obviously related, and should capture the access of the sovereign to external financial flows and foreign currencies, which can be crucial if repayment is in a foreign currency or if domestic funds are exhausted or temporarily insufficient. As Cantor and Packer (1996: 39) note, "a current account deficit indicates that the public and private sectors together rely heavily on funds from abroad." Moreover, we account for debt owed to nonresidents (*external debt*), again as a share of GDP. As Hill et al. (2011) note, the external debt burden is a particularly important factor when it comes to the assessment of the default risk of debt denominated in foreign currency. All three variables are taken from the World Bank's World Development Indicators.

Political and Institutional Performance. We control for eight measures of a sovereign's political and institutional characteristics of the rated country. First, a sovereign's regime type is captured using the "*polity 2*" variable from the Polity IV dataset (Marshall et al. 2013), which measures democracy on a 21-point scale. As Archer et al. (2007: 350) argue, democratic sovereigns could be rewarded "[b]ecause of the increased number of veto points, transparency of democratic

⁵ Data are available at <http://data.worldbank.org/> (accessed 29 April 2014).

governments, and their more credible commitments to repay debts.” Second, we include an *election* dummy that is coded as one if elections were held during the last 12 months. During this honeymoon period governments are more likely to implement economic reforms expected to be conducive to a sovereign’s ability to service its debt (Archer et al. 2007). Third, *years in office* captures the number of years the chief executive has been in office as of January 1st. Expecting stability to increase with tenure, the variable should be positively associated with sovereign ratings (Archer et al. 2007). Fourth, a binary variable for executive ideology (*left government*) is coded as one if the leader’s party is considered to be communist, socialist, social democratic or other left-wing. Left governments are less likely to embrace economic reform which thus might decrease the sovereign’s ability to repay debt (Archer et al. 2007).

Fifth to eighth, we control for a country’s *rule of law*, *absence of internal conflict*, *absence of external conflict* and *absence of military in politics*. These variables are drawn from the International Country Risk Guide (ICRG), where higher values indicate a better institutional environment.⁶ They have not been included in most prior studies, but a comparison of the factors that the nine agencies communicate in official documents (Online Appendix B4) with those employed in the literature shows a lack of control for political risks in the previous literature. This is why we add these further variables in this category (see also Gaillard 2012, who refers to “event risk” as one factor applied by Moody’s).

Finally, we also include a binary variable that takes a value of one if a country is a member of the *euro area* at a particular point in time. These countries have an additional source of funding; there is a certain likelihood that euro area members would bail out other members in the case of financial turmoil. For example, S&P’s criteria for rating sovereigns account for “special credit characteristics of sovereigns within a monetary union” since the June 2011 update (S&P 2012: 2).

Additional References:

Cordes, Till (2012). Where is the Democratic Advantage in the Sovereign Debt Market? It is Veto Players, Not Contested Elections. Working paper. Berlin, Germany: Hertie School of Governance.

Jensen, Nathan M. and Noel P. Johnston (2011). Political Risk, Reputation, and the Resource Curse. *Comparative Political Studies* 44(6): 662–688.

⁶ Data are available at <http://www.prsgroup.com/icrg.aspx> (last accessed 14 August 2013).

Schultz, Kenneth A. and Barry R. Weingast (2003). The Democratic Advantage: Institutional Foundations of Financial Power in International Competition. *International Organization* 57(1): 3-42.

Appendix C1: Home biases in sovereign ratings (OLS, all agencies pooled, yearly averages)

	(1) Full sample	(2) GFC sample
(a) Same country	0.980** [0.017]	1.713*** [0.000]
(b) Export interests	0.018 [0.290]	0.029 [0.132]
(c) Bank exposure	0.038* [0.067]	0.044* [0.087]
(d) Geopolitical alignment (UN)	0.006 [0.310]	0.015** [0.018]
(e) US military interests (aid)	0.030 [0.240]	0.108*** [0.007]
(f) Common language	0.734*** [0.001]	0.809*** [0.002]
(g) Cultural distance (language)	-0.022*** [0.000]	-0.028*** [0.000]
(h) Cultural distance (ethno-racial)	0.001 [0.569]	0.003 [0.342]

Notes: This table shows the results when we replicate the OLS regressions of Table 3 (columns 1 and 2) with yearly data by collapsing the monthly data. The dependent variable is a country's sovereign rating on a 21-point scale. Each cell refers to a separate regression. The table displays only the coefficients on the respective variable of interest of each regression. All regressions contain the control variables as specified in Online Appendix C2, time- and agency-fixed effects. The full sample contains data from 1990 to 2013 (column 1). The GFC sample runs from 2009 to 2013 (column 2). Standard errors are clustered at both the agency-time and the sovereign level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

Appendix C2: Determinants of sovereign ratings (only control variables, all agencies pooled)

	(1)		(2)		(3)	
	OLS				Ordered Probit	
	Full sample		GFC sample		Full sample	
GDP per capita (log)	2.069***	[0.000]	2.086***	[0.000]	1.101***	[0.000]
GDP growth	0.272***	[0.001]	0.378***	[0.000]	0.140***	[0.000]
GDP growth squared	-0.013*	[0.052]	-0.023***	[0.005]	-0.007**	[0.035]
Inflation	-9.365***	[0.000]	-17.194***	[0.000]	-5.011***	[0.000]
Natural resources	-0.027**	[0.027]	-0.017	[0.250]	-0.016**	[0.019]
Population (log)	0.744***	[0.000]	0.893***	[0.000]	0.416***	[0.000]
Change in government debt	-0.018	[0.267]	0.022	[0.618]	-0.006	[0.437]
Government debt	-0.009**	[0.044]	-0.023***	[0.001]	-0.007**	[0.012]
Default (since 1970)	-1.391***	[0.000]	-1.188***	[0.000]	-0.659***	[0.000]
Default (last 5 years)	-1.847***	[0.000]	-4.294***	[0.000]	-0.983***	[0.000]
Trade openness	0.004*	[0.090]	0.003	[0.309]	0.003*	[0.059]
Current account balance	0.075***	[0.000]	0.082***	[0.000]	0.045***	[0.000]
External debt	-0.71	[0.196]	-1.247**	[0.010]	-0.265	[0.356]
Rule of law	0.513***	[0.000]	0.359**	[0.027]	0.279***	[0.000]
Polity	0.015	[0.475]	0.017	[0.529]	0.017	[0.140]
Election	-0.101**	[0.049]	-0.092	[0.276]	-0.069***	[0.000]
Years in office	0.018	[0.310]	0.021	[0.311]	0.015	[0.100]
Left government	-0.059	[0.778]	0.044	[0.866]	-0.032	[0.792]
Absence of internal conflict	-0.016	[0.857]	0.263	[0.105]	-0.003	[0.951]
Absence of external conflict	0.221**	[0.036]	0.012	[0.937]	0.108	[0.102]
Absence of military in politics	0.343***	[0.005]	0.504***	[0.001]	0.163**	[0.022]
Euro area	0.595**	[0.026]	0.346	[0.369]	0.401**	[0.034]
Adj. R-Squared	0.86		0.86			
Number of observations	75,438		26,961		75,416	
Number of rated countries	107		104		107	

Notes: The dependent variable is a country's sovereign rating on a 21-point scale. All regressions include time- and agency-fixed effects. The full sample contains data from January 1990 to June 2013. The GFC sample runs from September 2008 to June 2013. Standard errors are clustered at both the agency-time and the sovereign level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

We run regressions that only include our control variables, i.e., exclude our variables of interest $x_{j,it}$. Since the previous literature has focused mainly on ratings from the big U.S.-based agencies, this exercise shows us whether our estimations with a larger set of agencies yield similar results. As can be seen from column 1 of the table above, the results are in line with former studies focusing on fewer agencies and shorter time periods. Both *GDP per capita* and *inflation* show the expected signs and are statistically significant at the one-percent level. In line with Hill et al. (2010), the positive effect of *GDP growth* is diminishing as indicated by the significant negative squared term. *Natural resources* shows a negative coefficient, which is significant at the one-percent level and in line with the idea of a

natural resource curse. *Population* is positive and statistically significant at the one-percent level; larger countries thus receive better ratings on average.

Turning to fiscal stability, we find that *change in government debt* and *government debt* both have the expected negative coefficients, but only the latter reaches statistical significance at conventional levels. Even conditional on the other variable, both *default* variables turn out to be negative and statistically significant at the one-percent level. The fact that a country has defaulted since 1970 leads to a rating that is lower by 1.4 points on our 21-point scale. Countries that have defaulted over the last five years are further downgraded by 1.8 points on average. With regard to a country's external performance, *trade openness* and *current account balance* have a positive and significant effect on ratings as expected. *External debt* does not seem to further affect sovereign ratings conditional on the other factors.

Most political and institutional factors show the expected signs. The coefficient on *rule of law* is positive in agreement with Biglaiser and Staats (2012) and statistically significant at the one-percent level. In line with political-business-cycle considerations (Block and Vaaler 2004), rating levels in times of *elections* seem to be related to more uncertainty about future government policy, as indicated by the respective negative coefficient (statistically significant at the five-percent level). Rating agencies also provide better ratings to countries characterized by *absence of external conflict* and *absence of military in politics*. All other political variables (*polity*, *years in office*, *left government*, and *absence of internal conflict*) do not reach statistical significance at conventional levels. As the "implicit bailout" guarantee would suggest, the coefficient on *euro area* is positive and statistically significant at the one-percent level. Overall, our results are similar when we restrict the observation period to the time after the onset of the GFC (see column 2 for details).

The objective country-specific controls alone explain 86 percent of the variation in sovereign ratings, as indicated by the adjusted R-squared value. Our model thus explains a large share of the variation in sovereign ratings from this broad set of agencies.

We also show in column 3 the results of an ordered probit model estimated with maximum likelihood estimation for the discrete 21-step rating at the end of a month. As expected, the results are qualitatively similar to the OLS estimation results in columns 1 and 2.

Appendix C3: Determinants of sovereign ratings (control variables of models in Table 3, column 1)

	(a)		(b)		(c)		(d)	
GDP per capita (log)	2.048***	[0.000]	2.022***	[0.000]	1.969***	[0.000]	2.053***	[0.000]
GDP growth	0.272***	[0.001]	0.273***	[0.001]	0.294***	[0.005]	0.274***	[0.001]
GDP growth squared	-0.013*	[0.052]	-0.013*	[0.051]	-0.014**	[0.056]	-0.013*	[0.050]
Inflation	-9.354***	[0.000]	-9.392***	[0.000]	-16.101***	[0.000]	-9.369***	[0.000]
Natural resources	-0.028**	[0.019]	-0.028**	[0.019]	-0.021	[0.108]	-0.027**	[0.030]
Population (log)	0.723***	[0.000]	0.708***	[0.000]	0.799***	[0.000]	0.743***	[0.000]
Change in government debt	-0.019	[0.260]	-0.019	[0.243]	-0.004	[0.218]	-0.018	[0.269]
Government debt	-0.010**	[0.028]	-0.011**	[0.021]	-0.017***	[0.003]	-0.009**	[0.045]
Default (ever)	-1.387***	[0.000]	-1.371***	[0.000]	-1.407***	[0.000]	-1.394***	[0.000]
Default (last 5 years)	-1.847***	[0.000]	-1.854***	[0.000]	-2.400***	[0.000]	-1.837***	[0.000]
Trade openness	0.004*	[0.088]	0.004*	[0.085]	0.004	[0.120]	0.004*	[0.091]
Current account balance	0.077***	[0.000]	0.078***	[0.000]	0.072***	[0.000]	0.076***	[0.000]
External debt	-0.704	[0.194]	-0.674	[0.212]	-1.041*	[0.061]	-0.717	[0.193]
Rule of law	0.513***	[0.000]	0.520***	[0.000]	0.412***	[0.006]	0.502***	[0.000]
Polity	0.013	[0.527]	0.015	[0.461]	0.019	[0.435]	0.012	[0.567]
Election	-0.101**	[0.048]	-0.105**	[0.041]	-0.076	[0.251]	-0.103**	[0.047]
Years in office	0.017	[0.329]	0.017	[0.330]	0.022	[0.309]	0.018	[0.297]
Left government	-0.052	[0.802]	-0.033	[0.872]	0.009	[0.972]	-0.049	[0.815]
Absence of internal conflict	-0.037	[0.682]	-0.047	[0.598]	0.069	[0.625]	-0.019	[0.831]
Absence of external conflict	0.235**	[0.028]	0.227**	[0.039]	0.154	[0.250]	0.225**	[0.032]
Absence of military in politics	0.355***	[0.003]	0.370***	[0.003]	0.510***	[0.001]	0.340***	[0.005]
Euro area	0.620**	[0.021]	0.690**	[0.010]	0.529	[0.105]	0.596**	[0.027]
Adjusted R-squared	0.86		0.86		0.87		0.86	
Observations	75,438		73,919		37,949		75,048	

Appendix C3 (continued): Determinants of sovereign ratings (control variables of models in Table 3, column 1)

	(e)		(f)		(g)		(h)	
GDP per capita (log)	2.036***	[0.000]	2.112***	[0.000]	1.968***	[0.000]	2.072***	[0.000]
GDP growth	0.242***	[0.001]	0.268***	[0.001]	0.274***	[0.001]	0.271***	[0.001]
GDP growth squared	-0.009**	[0.048]	-0.012*	[0.062]	-0.013**	[0.050]	-0.013*	[0.052]
Inflation	-8.846***	[0.000]	-9.129***	[0.000]	-9.074***	[0.000]	-9.370***	[0.000]
Natural resources	-0.021	[0.117]	-0.030***	[0.009]	-0.030***	[0.010]	-0.027**	[0.026]
Population (log)	0.719***	[0.000]	0.720***	[0.000]	0.724***	[0.000]	0.746***	[0.000]
Change in government debt	-0.023	[0.123]	-0.016	[0.343]	-0.016	[0.327]	-0.018	[0.267]
Government debt	-0.013**	[0.022]	-0.011**	[0.018]	-0.010**	[0.019]	-0.009**	[0.044]
Default (ever)	-1.506***	[0.000]	-1.363***	[0.000]	-1.438***	[0.000]	-1.392***	[0.000]
Default (last 5 years)	-1.929***	[0.000]	-1.783***	[0.000]	-1.869***	[0.000]	-1.842***	[0.000]
Trade openness	0.009**	[0.021]	0.003	[0.159]	0.004*	[0.077]	0.004*	[0.084]
Current account balance	0.033	[0.118]	0.075***	[0.000]	0.077***	[0.000]	0.075***	[0.000]
External debt	-0.979*	[0.096]	-0.538	[0.326]	-0.668	[0.195]	-0.718	[0.192]
Rule of law	0.370***	[0.005]	0.487***	[0.000]	0.502***	[0.000]	0.516***	[0.000]
Polity	0.022	[0.354]	0.002	[0.912]	0.002	[0.904]	0.016	[0.457]
Election	-0.155**	[0.043]	-0.096**	[0.050]	-0.106**	[0.039]	-0.101**	[0.049]
Years in office	0.021	[0.169]	0.016	[0.369]	0.017	[0.332]	0.017	[0.312]
Left government	-0.059	[0.797]	-0.067	[0.741]	-0.084	[0.675]	-0.063	[0.762]
Absence of internal conflict	-0.045	[0.624]	-0.004	[0.966]	-0.022	[0.799]	-0.014	[0.874]
Absence of external conflict	0.245**	[0.035]	0.238**	[0.022]	0.202**	[0.044]	0.221**	[0.036]
Absence of military in politics	0.384***	[0.004]	0.334***	[0.004]	0.360***	[0.002]	0.344***	[0.005]
Euro area	1.200**	[0.011]	0.720***	[0.005]	0.693***	[0.009]	0.592**	[0.027]
Adjusted R-squared	0.85		0.87		0.87		0.86	
Observations	36,923		75,438		75,438		75,438	

Appendix C4: Adjusted R-squared and number of observations of OLS models in Table 3

	(1) Full sample	(2) GFC sample
(a) Same country	0.86 75438	0.87 26961
(b) Export interests	0.86 73919	0.86 26461
(c) Bank exposure	0.87 37949	0.87 22426
(d) Geopolitical alignment (UN)	0.86 75048	0.86 26961
(e) US military interests (aid)	0.85 36923	0.88 12405
(f) Common language	0.87 75438	0.87 26961
(g) Cultural distance (language)	0.87 75438	0.87 26961
(h) Cultural distance (ethno-racial)	0.86 75438	0.86 26961

Note: The number of observations are identical in the corresponding ordered probit regressions.

Appendix C5: Home biases in sovereign ratings (OLS, pre- and post-GFC onset)

	(1)	(2)	(3)	(4) (5) (6) Controlled for <i>same country</i>		
	Full sample	Pre-GFC sample	GFC sample	Full sample	Pre-GFC sample	GFC sample
(a) Same country	0.950** [0.019]	0.619* [0.098]	1.704*** [0.000]			
(b) Export interests	0.017 [0.358]	0.004 [0.836]	0.030 [0.133]			
(c) Bank exposure	0.038* [0.072]	0.026 [0.229]	0.045* [0.074]			
(d) Geopolitical alignment (UN)	0.005 [0.360]	-0.007 [0.321]	0.013*** [0.006]	0.000 [0.951]	-0.013* [0.072]	0.008 [0.156]
(e) US military interests (aid)	0.034 [0.185]	0.021 [0.449]	0.116*** [0.009]			
(f) Common language	0.742*** [0.001]	0.699*** [0.003]	0.810*** [0.003]	0.695*** [0.003]	0.689*** [0.005]	0.653** [0.035]
(g) Cultural distance (language)	-0.021*** [0.000]	-0.017*** [0.002]	-0.027*** [0.000]	-0.021*** [0.000]	-0.017*** [0.004]	-0.025*** [0.000]
(h) Cultural distance (ethno-racial)	0.001 [0.588]	0.000 [0.875]	0.003 [0.252]	0.002 [0.304]	0.001 [0.704]	0.005** [0.033]

Notes: The dependent variable is a country's sovereign rating on a 21-point scale. Each cell refers to a separate regression. The table displays only the coefficients on the respective variable of interest of each regression. All regressions contain the control variables as specified in Online Appendix C2, time- and agency-fixed effects. The full sample contains data from January 1990 to June 2013 (columns 1 and 4). The pre-GFC sample runs from January 1990 to August 2008 (columns 2 and 5). The GFC sample runs from September 2008 to June 2013 (columns 3 and 6). Controlling for the *same country* dummy (columns 4-6) is not necessary in the case of *export interests* and *bank exposure* as these variables are not coded for the home country. Standard errors are clustered at both the agency-time and the sovereign level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

Appendix C6: Home bias in sovereign ratings
(all agencies pooled, additional control for same legal origin)

	(1) Full sample	(2) GFC sample
(a) Same country	0.940** [0.031]	1.520*** [0.006]
(b) Export interests	0.017 [0.390]	0.027 [0.222]
(c) Bank exposure	0.038* [0.074]	0.050* [0.094]
(d) Geopolitical alignment (UN)	0.005 [0.375]	0.015*** [0.002]
(e) US military interests (aid)	0.042* [0.091]	0.138*** [0.001]
(f) Common language	0.839*** [0.001]	0.957*** [0.006]
(g) Cultural distance (language)	-0.021*** [0.000]	-0.030*** [0.000]
(h) Cultural distance (ethno-racial)	0.001 [0.630]	0.006 [0.124]

Notes: The dependent variable is a country's sovereign rating on a 21-point scale. Each cell refers to a separate regression. The table displays only the coefficients on the respective variable of interest of each regression. All regressions contain the control variables as specified in Online Appendix C2, time- and agency-fixed effects, and a dummy variable that takes a value of one if the home country and the rated country share the same legal origin. The full sample contains data from January 1990 to June 2013 (column 1). The GFC sample runs from September 2008 to June 2013 (column 2). Standard errors are clustered at both the agency-time and the sovereign level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

Appendix D1: Home biases in sovereign ratings (OLS, by agency)

	(1) CI CYP	(2) Dagong CHN	(3) DBRS CAN	(4) Feri DEU	(5) Fitch USA	(6) JCR JPN	(7) Moody's USA	(8) R&I JPN	(9) S&P USA	(10) CI KWT	(11) Fitch FRA
(a) Same country	1.950* [0.053]	2.483* [0.095]	0.969 [0.178]	-0.223 [0.576]	0.876* [0.058]	0.590 [0.574]	0.252 [0.620]	1.985** [0.014]	0.759 [0.100]	0.561 [0.520]	1.063*** [0.000]
(b) Export interests	-0.387*** [0.000]	-0.113 [0.200]	0.014 [0.366]	0.098 [0.189]	0.03 [0.272]	0.081* [0.071]	0.041* [0.051]	-0.001 [0.982]	0.047* [0.057]	0.61 [0.344]	0.076 [0.122]
(c) Bank exposure			-0.021 [0.358]	0.150*** [0.000]	0.107** [0.013]	0.060*** [0.009]	0.062 [0.129]	0.039 [0.184]	0.135*** [0.001]		0.052 [0.222]
(d) Geopolitical alignment (UN)	-0.016 [0.786]	0.058*** [0.007]	0.024 [0.535]	-0.070*** [0.000]	0.017 [0.145]	-0.069*** [0.001]	0.004 [0.762]	-0.038 [0.154]	-0.001 [0.946]	-0.001 [0.972]	-0.017 [0.345]
(e) US military interests (aid)					0.036 [0.141]		0.034 [0.122]		0.033 [0.271]		
(f) Common language	-1.494 [0.152]	1.039 [0.334]	0.737* [0.081]	0.752 [0.109]	0.880*** [0.001]	0.590 [0.574]	0.869*** [0.005]	1.985** [0.014]	0.810*** [0.002]	2.611** [0.015]	0.028 [0.934]
(g) Cultural distance (language)	-0.002 [0.931]	-0.035* [0.050]	-0.072*** [0.001]	-0.020** [0.025]	-0.033*** [0.004]	-0.002 [0.857]	-0.024** [0.023]	-0.015 [0.118]	-0.028*** [0.003]	-0.033** [0.016]	0.003 [0.631]
(h) Cultural distance (ethno-racial)	-0.008 [0.335]	0.006 [0.521]	0.001 [0.952]	-0.004 [0.525]	-0.008 [0.430]	0.003 [0.670]	0.004 [0.711]	-0.007 [0.489]	0.003 [0.797]	-0.034** [0.015]	0.002 [0.699]

Notes: The dependent variable is a country's sovereign rating on a 21-point scale. Each cell refers to a separate regression. The table displays only the coefficients on the respective variable of interest of each regression (see Online Appendix D4 for results of the control variables). All regressions contain the control variables as specified in Online Appendix C2, time-fixed effects and a constant. Data range from January 1990 to June 2013. Columns (1) to (9) define the home country based on the agency's headquarters and columns (10) and (11) based on the ownership definition. Online Appendix D5 displays the adjusted R-squared values and the number of observations of each regression. Standard errors are clustered at both the sovereign and the time level. ***, **, * indicate significance at the 1%, 5% or 10% level. P-values are displayed in brackets.

Appendix D2: Home biases in sovereign ratings (ordered probit, by agency)

	(1) CI CYP	(2) Dagong CHN	(3) DBRS CAN	(4) Feri DEU	(5) Fitch USA	(6) JCR JPN	(7) Moody's USA	(8) R&I JPN	(9) S&P USA	(10) CI KWT	(11) Fitch FRA
(a) Same country	2.444*** [0.008]	6.949*** [0.000]	N/A	5.310*** [0.000]	5.493*** [0.000]	6.244*** [0.000]	5.375*** [0.000]	2.601*** [0.000]	1.460*** [0000]	0.933 [0.191]	5.314*** [0.000]
(b) Export interests	-0.711*** [0.000]	-0.082** [0.046]	N/A	0.150** [0.015]	0.015 [0.252]	0.177 [0.138]	0.032*** [0.006]	0.036 [0.425]	0.036** [0.022]	0.853 [0.134]	0.071 [0.142]
(c) Bank exposure			N/A	0.134*** [0.000]	0.117** [0.014]	1.873*** [0.000]	0.089* [0.075]	0.568*** [0.000]	0.164** [0.025]		0.043 [0.301]
(d) Geopolitical alignment (UN)	0.005 [0.914]	0.046*** [0.000]	N/A	-0.041*** [0.002]	0.015* [0.076]	-0.153*** [0.008]	0.006 [0.451]	-0.121*** [0.001]	0.002 [0.784]	-0.002 [0.948]	-0.016 [0.197]
(e) US military interests (aid)					0.034** [0.013]		0.019* [0.093]		0.028 [0.115]		
(f) Common language	-1.404 [0.233]	1.003 [0.164]	N/A	1.480*** [0.000]	0.507*** [0.003]		0.594*** [0.002]		0.466*** [0.009]	2.040* [0.075]	0.041 [0.882]
(g) Cultural distance (language)	-0.007 [0.641]	-0.049*** [0.001]	N/A	-0.035*** [0.000]	-0.021** [0.022]	-0.023* [0.052]	-0.021*** [0.002]	-0.019* [0.051]	-0.020*** [0.006]	-0.029** [0.025]	0.004 [0.359]
(h) Cultural distance (ethno-racial)	-0.009 [0.120]	0.001 [0.754]	N/A	-0.007* [0.091]	-0.004 [0.477]	-0.002 [0.746]	0.002 [0.737]	-0.004 [0.600]	0.002 [0.735]	-0.028* [0.050]	0.002 [0.632]

Notes: The dependent variable is a country's sovereign rating on a 21-point scale. Each cell refers to a separate regression. The table displays only the coefficients on the respective variable of interest of each regression. All regressions contain the control variables as specified in Online Appendix C2, time-fixed effects and a constant. Data range from January 1990 to June 2013. Columns (1) to (9) define the home country based on the agency's headquarters and columns (10) and (11) define it based on the ownership definition. For DBRS (column 3) the maximum likelihood procedure did not converge, most likely due to insufficient variation in the independent variables for each rating category. Standard errors are clustered at both the sovereign and the time level. ***, **, * indicate significance at the 1%, 5% or 10% level. P-values are displayed in brackets.

Appendix D3: Description of results using agency-specific regressions

Online Appendix D1 shows the coefficients of our variables of interest for each agency individually.⁷ The coefficients on *same country* are positive and within a reasonable range between 0.252 (Moody's) and 2.483 (Dagong). However, the only exception, Feri, highlights a potential problem of OLS in the analysis of a bounded dependent variable. Feri assigns the highest possible "AAA" (21) rating to Germany throughout the sample period. The negative *same country* coefficient suggests that the predicted rating based on the treatment of the sovereign-specific factors of other sovereigns is above 21. As can be seen in Figure 2, this also occurs for Fitch, Moody's, S&P, and JCR. This implies that the coefficient on *same country* will be biased downwards in these cases. Being aware of this caveat, we find that only CI, Dagong, Fitch and R&I provide a significantly higher rating to the country where their headquarters is based, while the coefficient for S&P is marginally significant (p-value: 0.100). By re-running the agency-specific regressions using ordered probit, we account for the bounded nature of the dependent variable. Online Appendix D2 shows that *same country* also becomes statistically significant at the 1% level for Feri, Fitch, JCR, Moody's, and S&P, i.e., those agencies for which the OLS coefficient should be negatively biased. This suggests that the home bias in sovereign ratings is a broad phenomenon and not restricted to single agencies.⁸

We now turn to our measures of economic interests between home and sovereign (see again Online Appendices D1 and D2). While *export interests* does not gain significance in the pooled regressions of Table 3, the agency-specific regressions reveal a more nuanced picture. The respective coefficient becomes significantly positive at conventional levels for Moody's and S&P according to both tables, for JCR according to Online Appendix D1 (OLS) and for Feri according to Online

⁷ The interested reader will find the results of agency-specific regressions excluding the variables of interest in Online Appendix D4. The R-squared values and number of observations corresponding to the regressions of Online Appendix D1 are displayed in Online Appendix D5.

⁸ Note that the maximum likelihood procedure did not converge for DBRS, the smallest agency in our sample in terms of number of rated countries (25).

Appendix D2 (ordered probit). The unexpected statistically significant negative coefficient for CI disappears when we omit Greece, which is by far Cyprus' largest export market and could be regarded as an outlier given Greece's economic turmoil during the sample period. The evidence on *bank exposure* is much more conclusive and supports the results from the pooled regressions. For four (OLS) and six (ordered probit) agencies, the corresponding coefficient is positive and statistically significant at conventional levels. The largest effect exists for Feri, where a 10% increase in the share of overall exposure to the rated country leads to a 1.5-point increase in its rating (column 4).

Geopolitical ties seem to be largely irrelevant for the rating decisions of most agencies. With regard to *geopolitical alignment (UN)*, the coefficient is insignificant in most specifications and even significantly negative for Feri and JCR (and R&I with ordered probit). The one notable exception is Dagong where the coefficient is positive and statistically significant at the 1% level with both OLS and ordered probit. It seems that Dagong assigns higher ratings to those countries that are politically more aligned with the Chinese government. This effect is sizable and robust in terms of size and significance to the inclusion of the *same country* dummy (not displayed). A country receives a rating that is one full point higher if its political alignment with China increases by 17 percentage points. This is approximately the difference between Brazil's (89%) and Turkey's (72%) voting alignment with China in the UN General Assembly in 2012. While the coefficient on *military interests (aid)* does not reach statistical significance at conventional levels in the OLS specifications, it becomes statistically significant and positive for Fitch and Moody's when using ordered probit. Overall, there is no robust evidence that geopolitical ties between home and sovereign have an impact on rating decisions for all agencies except Dagong.

Again, the results in Online Appendices D1 and D2 highlight the importance of cultural relatedness. The coefficients on *common language* are positive in all cases but one (CI), and the effect of *cultural distance (language)* is negative in all cases. For eight out of nine agencies at least one of the two variables is statistically significant at conventional levels in Online Appendices D1 and D2. CI and Dagong are the only agencies for which we find no evidence that they assign higher ratings to countries that share a *common language* with their home country. The more nuanced *cultural distance*

(language) reaches statistical significance at conventional levels for all agencies except CI according to the results in at least one of the two tables. These findings highlight that the cultural home bias is a general phenomenon and not restricted to individual rating agencies.

Finally, we consider an alternative definition of home country. Rather than defining the home country based on the location of the agency's headquarters, we apply the ownership definition. Thus, CI is coded as "Kuwait" and Fitch is coded as "France." As can be seen from column 10 in Online Appendices D1 and D2, Kuwait does not receive a relatively higher rating from CI as in the case of Cyprus, the location of CI's headquarters. However, CI assigns significantly higher ratings to Arab-speaking countries and countries that are linguistically or ethno-racially closer to Kuwait. This might be related to their large share of employees of Arabic origin. For Fitch, we find a positive coefficient on *same country* when we apply the ownership definition instead of the location definition (column 11). According to the OLS results, Fitch's rating of France is one point higher than what would be expected by the agency's treatment of other countries. The variables for cultural distance are all insignificant in contrast to the results with the United States as the home country in column 5. In summary, these results can be taken as evidence that it is not only the location of an agency that matters for rating outcomes but also the ownership structure.

Appendix D4: Determinants of sovereign ratings (only control variables, by agency)

	CI	Dagong	DBRS	Feri	Fitch	JCR	Moody's	R&I	S&P
GDP per capita (log)	1.504*** [0.000]	1.980*** [0.000]	3.629*** [0.000]	1.843*** [0.000]	2.102*** [0.000]	1.658*** [0.000]	2.161*** [0.000]	2.113*** [0.000]	2.106*** [0.000]
GDP growth	0.158 [0.164]	0.514*** [0.000]	0.630*** [0.000]	0.396*** [0.005]	0.189*** [0.008]	0.064 [0.492]	0.239*** [0.001]	0.420** [0.024]	0.299*** [0.000]
GDP growth squared	-0.018** [0.021]	-0.015 [0.199]	-0.002 [0.876]	-0.027* [0.055]	-0.007 [0.103]	-0.022 [0.183]	-0.008* [0.096]	-0.037** [0.041]	-0.018** [0.010]
Inflation	-14.319** [0.037]	-12.909* [0.058]	2.546 [0.815]	-6.759 [0.194]	-8.368*** [0.000]	-14.374*** [0.000]	-7.992*** [0.000]	-9.191 [0.106]	-11.360*** [0.000]
Natural resources	-0.029 [0.260]	-0.042 [0.126]	0.107** [0.010]	-0.061 [0.190]	-0.030** [0.026]	0.086* [0.056]	-0.030** [0.028]	-0.056 [0.264]	-0.016 [0.210]
Population (log)	0.651*** [0.000]	0.724*** [0.001]	1.389*** [0.000]	0.752*** [0.000]	0.718*** [0.000]	0.391* [0.073]	0.706*** [0.000]	0.759*** [0.000]	0.681*** [0.000]
Change in government debt	0.027 [0.579]	0.082 [0.208]	0.006 [0.855]	0.005 [0.870]	-0.037** [0.041]	-0.025 [0.372]	-0.017 [0.299]	0.012 [0.716]	-0.035** [0.022]
Government debt	-0.020 [0.155]	-0.038*** [0.000]	-0.072*** [0.000]	-0.004 [0.431]	-0.010** [0.027]	0.013* [0.060]	-0.011** [0.024]	-0.008 [0.252]	-0.012** [0.011]
Default (since 1970)	-1.157*** [0.000]	-0.684 [0.249]	-3.759*** [0.000]	-0.773 [0.227]	-1.564*** [0.000]	-1.534** [0.022]	-1.814*** [0.000]	-1.682*** [0.008]	-1.376*** [0.000]
Default (last 5 years)	-1.703 [0.524]	-4.852*** [0.000]	0.701 [0.229]	-0.286 [0.687]	-2.168*** [0.000]	-2.880*** [0.000]	-1.751*** [0.000]	-2.214*** [0.001]	-1.793*** [0.000]
Trade openness	0.006* [0.074]	-0.004 [0.441]	0.006 [0.307]	-0.008** [0.033]	0.005* [0.079]	0.013* [0.068]	0.005* [0.071]	-0.002 [0.623]	0.007** [0.011]
Current account balance	0.056* [0.064]	0.145*** [0.001]	-0.089** [0.027]	0.248*** [0.000]	0.040** [0.033]	-0.032 [0.464]	0.051*** [0.006]	0.103*** [0.005]	0.048** [0.010]

Appendix D4 (continued): Determinants of sovereign ratings (only control variables, by agency)

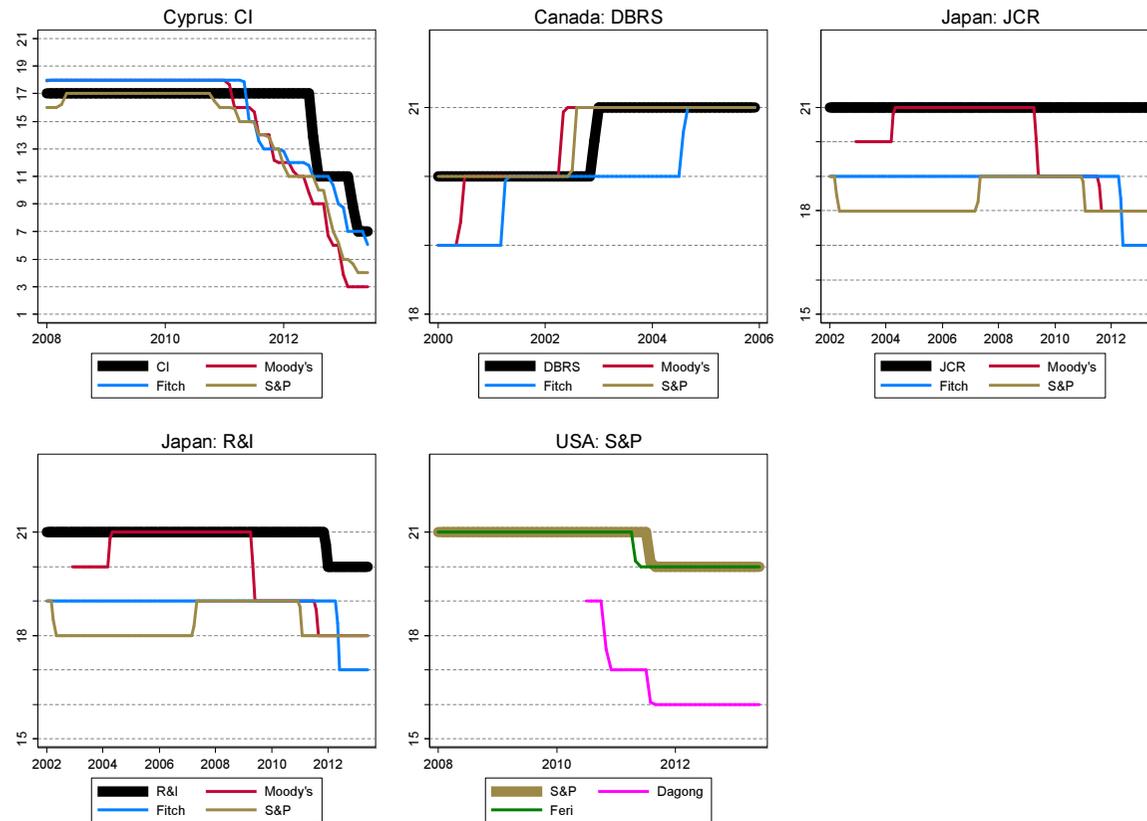
	CI	Dagong	DBRS	Feri	Fitch	JCR	Moody's	R&I	S&P
External debt	-1.639*** [0.002]	-2.015* [0.077]	-10.539*** [0.000]	0.923 [0.469]	-1.088 [0.104]	-1.551* [0.069]	-0.778 [0.193]	-0.567 [0.334]	-1.064* [0.073]
Rule of law	-0.426 [0.102]	0.124 [0.669]	-0.094 [0.748]	0.514** [0.014]	0.564*** [0.000]	0.575* [0.063]	0.480*** [0.000]	0.665*** [0.006]	0.545*** [0.000]
Polity	-0.129*** [0.002]	-0.035 [0.514]	-0.421* [0.065]	-0.082 [0.127]	-0.005 [0.842]	0.127 [0.394]	0.038 [0.177]	-0.03 [0.459]	0.043* [0.076]
Election	-0.057 [0.574]	-0.154 [0.400]	-0.055 [0.575]	-0.168** [0.048]	-0.09 [0.162]	-0.008 [0.896]	-0.081 [0.221]	-0.161* [0.052]	-0.136** [0.021]
Years in office	0.035 [0.252]	0.063* [0.088]	-0.186*** [0.000]	0.073** [0.020]	0.018 [0.327]	0.027 [0.325]	-0.001 [0.948]	0.022 [0.429]	0.015 [0.271]
Left government	0.055 [0.889]	0.273 [0.532]	0.441* [0.056]	-0.093 [0.699]	-0.109 [0.610]	0.13 [0.541]	-0.094 [0.685]	0.225 [0.509]	-0.024 [0.903]
Absence of internal conflict	0.201 [0.436]	0.511* [0.057]	0.439** [0.044]	-0.042 [0.736]	-0.089 [0.366]	-0.350** [0.026]	0.044 [0.646]	-0.117 [0.446]	-0.056 [0.485]
Absence of external conflict	-0.073 [0.746]	-0.29 [0.338]	-0.016 [0.903]	0.118 [0.440]	0.279*** [0.005]	0.142 [0.360]	0.230** [0.032]	0.292* [0.095]	0.286*** [0.005]
Absence of military in politics	1.010*** [0.000]	0.728** [0.015]	0.966*** [0.000]	0.424* [0.079]	0.340** [0.023]	0.133 [0.618]	0.321** [0.025]	0.312 [0.125]	0.303** [0.019]
Euro area	1.116 [0.204]	0.339 [0.566]	1.181*** [0.001]	0.696** [0.044]	0.720** [0.019]	0.820* [0.053]	0.477 [0.161]	0.531* [0.088]	0.589* [0.074]

Notes: The dependent variable is a country's sovereign rating on a 21-point scale. All regressions contain time- and agency-fixed effects. Data are from January 1990 to June 2013. Standard errors are clustered at both the sovereign and the time level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

Appendix D5: Adjusted R-squared and number of observations of OLS models in Appendix D1

		(1) CI CYP	(2) Dagong CHN	(3) DBRS CAN	(4) Feri DEU	(5) Fitch USA	(6) JCR JPN	(7) Moody's USA	(8) R&I JPN	(9) S&P USA	(10) CI KWT	(11) Fitch FRA
(a) Same country	Adj. R2	0.91	0.86	0.97	0.80	0.90	0.91	0.88	0.87	0.90	0.91	0.90
	Obs.	2,176	2,174	1,047	8,730	14,814	4,940	16,374	6,953	18,230	2,176	14,814
(b) Export interests	Adj. R2	0.93	0.86	0.97	0.79	0.89	0.91	0.88	0.87	0.90	0.91	0.90
	Obs.	2,108	2,138	885	8,561	14,587	4,787	16,092	6,793	17,968	1,897	14,587
(c) Bank exposure	Adj. R2	0.93	0.86	0.98	0.81	0.90	0.93	0.89	0.89	0.90	0.91	0.90
	Obs.	2,108	2,138	643	5,125	8,218	3,136	7,926	4,016	8,885	1,897	7,758
(d) Geopolitical alignment (UN)	Adj. R2	0.91	0.87	0.97	0.81	0.90	0.92	0.88	0.87	0.90	0.91	0.90
	Obs.	2,176	2,174	1,047	8,698	14,724	4,940	16,229	6,953	18,107	2,176	14,724
(e) US military interests (aid)	Adj. R2	0.91	0.87	0.97	0.81	0.85	0.92	0.84	0.87	0.85	0.91	0.90
	Obs.	2,176	2,174	1,047	8,698	11,216	4,940	12,041	6,953	13,666	2,176	14,724
(f) Common language	Adj. R2	0.91	0.86	0.98	0.80	0.90	0.91	0.89	0.87	0.90	0.92	0.90
	Obs.	2,176	2,174	1,047	8,730	14,814	4,940	16,374	6,953	18,230	2,176	14,814
(g) Cultural distance (language)	Adj. R2	0.91	0.86	0.98	0.80	0.90	0.91	0.88	0.87	0.90	0.92	0.90
	Obs.	2,176	2,174	1,047	8,730	14,814	4,940	16,374	6,953	18,230	2,176	14,814
(h) Cultural distance (ethno-racial)	Adj. R2	0.91	0.86	0.97	0.80	0.90	0.91	0.88	0.87	0.90	0.92	0.90
	Obs.	2,176	2,174	1,047	8,730	14,814	4,940	16,374	6,953	18,230	2,176	14,814

Appendix E1: Leads and lags in sovereign ratings of home countries



Notes: This figure displays selected cases of rating changes to compare the timing of decisions by home agencies with foreign agencies. We selected those cases in which we observe a change in the rating of the home country. Note that Dagong, Feri, Fitch and Moody's maintain the same rating for their respective home country throughout the sample period. Thick lines depict the ratings of the respective home agency. In the figures for the small agencies, thin lines depict the ratings of the big U.S.-based agencies for comparison. In the case of U.S.-based S&P, we select the two non-US agencies with the broadest rated-country coverage (Dagong and Feri) for comparison.

The graphs show no sign of information advantages on part of the home agencies as they do not act as first-movers. Rather, they lag behind the rating decisions of foreign agencies.

Appendix F1: Home biases in sovereign ratings(all agencies pooled, Heckman selection model)

	(1)	(2)	(3)	(4)
(a) Same country	0.945** [0.024]	0.949** [0.023]	0.963** [0.021]	0.961** [0.021]
<i>Rho</i>	0.363	0.322	0.201	0.170
<i>Wald test Chi2 (p-value)</i>	25.434 0.000	19.890 0.000	3.729 0.053	2.743 0.098
(b) Export interests	0.011 [0.543]	0.012 [0.512]	0.015 [0.418]	0.015 [0.405]
<i>Rho</i>	0.379	0.335	0.204	0.173
<i>Wald test Chi2 (p-value)</i>	27.481 0.000	20.662 0.000	3.603 0.058	2.643 0.104
(c) Bank exposure	0.034* [0.094]	0.035* [0.087]	0.036* [0.081]	0.036* [0.078]
<i>Rho</i>	0.316	0.266	0.315	0.279
<i>Wald test Chi2 (p-value)</i>	6.222 0.013	3.891 0.049	3.561 0.059	2.457 0.117
(d) Geopolitical alignment (UN)	0.005 [0.372]	0.005 [0.383]	0.005 [0.371]	0.005 [0.374]
<i>Rho</i>	0.371	0.330	0.217	0.189
<i>Wald test Chi2 (p-value)</i>	26.605 0.000	21.439 0.000	4.527 0.033	3.446 0.063
(e) US military interests (aid)	0.041 [0.135]	0.040 [0.134]	0.035 [0.175]	0.035 [0.174]
<i>Rho</i>	0.572	0.564	0.291	0.270
<i>Wald test Chi2 (p-value)</i>	34.904 0.000	32.909 0.000	5.299 0.021	4.482 0.034
(f) Common language	0.698*** [0.001]	0.707*** [0.001]	0.727*** [0.001]	0.731*** [0.001]
<i>Rho</i>	0.346	0.308	0.182	0.162
<i>Wald test Chi2 (p-value)</i>	22.575 0.000	17.570 0.000	3.110 0.078	2.579 0.108
(g) Cultural distance (language)	-0.021*** [0.000]	-0.021*** [0.000]	-0.021*** [0.000]	-0.021*** [0.000]
<i>Rho</i>	0.330	0.288	0.184	0.155
<i>Wald test Chi2 (p-value)</i>	22.661 0.000	17.137 0.000	3.470 0.063	2.457 0.117
(h) Cultural distance (ethno-racial)	0.001 [0.673]	0.001 [0.670]	0.001 [0.661]	0.001 [0.653]
<i>Rho</i>	0.368	0.325	0.210	0.177
<i>Wald test Chi2 (p-value)</i>	26.385 0.000	20.851 0.000	4.187 0.041	3.046 0.081
<i>Exclusion variable</i>	<i>None</i>	<i>Number of rated countries in the previous period (by agency)</i>	<i>Number of "Big Three" rating a particular country in the previous period (by sovereign)</i>	<i>Both</i>

Notes: The dependent variable of the second stage is a country's sovereign rating on a 21-point scale. The dependent variable of the first stage is a dummy variable that takes a value of one if the sovereign receives a rating from a particular agency. Each cell refers to a separate regression. The table displays the coefficients on the respective variable of interest of each regression of the second stage. All regressions include control variables, time- and agency-fixed effects. We also report the value of Rho and the results of a Wald test of independent equations. The last row indicates the respective exclusion variables that are only included in the first-stage regression. The full sample contains data from February 1990 to June 2013. Standard errors are clustered at sovereign level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

Appendix F2: Interactions of same-country variable with economic and political fundamentals

	Marginal effect (<i>same country</i> =0)		Marginal effect (<i>same country</i> =1)		Test for significant difference
GDP per capita (log)	2.043***	[0.000]	3.734**	[0.045]	(0.367)
GDP growth	0.272***	[0.001]	0.261	[0.143]	(0.943)
GDP growth squared	-0.013**	[0.051]	-0.041	[0.169]	(0.329)
Inflation	-9.431***	[0.000]	-40.932**	[0.021]	(0.079)
Natural resources	-0.028**	[0.022]	0.147	[0.175]	(0.115)
Population (log)	0.727***	[0.000]	0.997**	[0.021]	(0.552)
Change in government debt	-0.020	[0.235]	-0.007	[0.482]	(0.455)
Government debt	-0.011**	[0.024]	0.005**	[0.014]	(0.004)
Default (since 1970)	-1.371***	[0.000]			
Default (last 5 years)	-1.858***	[0.000]			
Trade openness	0.004*	[0.076]	0.037	[0.113]	(0.157)
Current account balance	0.077***	[0.000]	-0.130	[0.112]	(0.011)
External debt	-0.681	[0.212]	11.991	[0.884]	(0.878)
Rule of law	0.518***	[0.000]	0.237	[0.447]	(0.385)
Polity	0.015	[0.460]	-0.594	[0.364]	(0.353)
Election	-0.105**	[0.041]	0.098	[0.137]	(0.010)
Years in office	0.017	[0.329]	-0.009	[0.757]	(0.426)
Left government	-0.035	[0.868]	-0.312	[0.159]	(0.368)
Absence of internal conflict	-0.040	[0.651]	0.396**	[0.019]	(0.034)
Absence of external conflict	0.226**	[0.041]	-0.005	[0.940]	(0.074)
Absence of military in politics	0.363***	[0.003]	0.268*	[0.090]	(0.655)
Euro area	0.669**	[0.014]	-0.015	[0.980]	(0.299)

Notes: The table displays the marginal effects of all control variables calculated separately for home countries and foreign countries. The dependent variable is a country's sovereign rating on a 21-point scale. The regression contains the *same country* dummy, all control variables, their interactions with *same country*, and time- and agency-fixed effects. The full sample contains data from January 1990 to June 2013. Standard errors are clustered at both the sovereign and the time level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets. The final column displays the p-values of the interaction terms, which correspond to those of a Wald test for significant differences between the marginal effects for home and foreign countries.

Appendix F3: Solicitation status and home biases in sovereign ratings (DBRS, Moody's, R&I, and S&P only)

	(1)		(2)				(3)					
	Variable of interest		I. Variable of interest	II. Solicitation status (1=Unsolicited, 0= Solicited)		I. Variable of interest		II. Solicitation status (1=Unsolicited, 0= Solicited)		III. Interaction		
(a) Same country	0.872*	[0.091]	0.884*	[0.088]	0.095	[0.739]						
(b) Export interests	0.036**	[0.023]	0.036**	[0.020]	0.130	[0.649]	0.031*	[0.061]	0.076	[0.804]	0.026	[0.350]
(c) Bank exposure	0.047**	[0.045]	0.044**	[0.032]	0.386	[0.178]	0.036*	[0.070]	0.357	[0.232]	0.012	[0.649]
(d) Geopolitical alignment (UN)	-0.003	[0.759]	-0.003	[0.755]	0.066	[0.824]	-0.004	[0.642]	-0.400	[0.583]	0.008	[0.451]
(e) US military interests (aid)	0.032	[0.208]	0.034	[0.185]	0.248	[0.657]	0.035	[0.181]	0.354	[0.525]	-0.299**	[0.012]
(f) Common language	0.844***	[0.001]	0.843***	[0.001]	0.035	[0.898]	0.775***	[0.007]	-0.056	[0.860]	0.348	[0.383]
(g) Cultural distance (language)	-0.025***	[0.000]	-0.025***	[0.000]	-0.026	[0.921]	-0.026***	[0.007]	-0.159	[0.833]	0.002	[0.867]
(h) Cultural distance (ethno-racial)	-0.004	[0.194]	-0.004	[0.236]	0.047	[0.872]	0.005	[0.501]	1.144	[0.175]	-0.015	[0.199]

Notes: The dependent variable is a country's sovereign rating on a 21-point scale. Each row refers to a separate regression. All regressions contain the control variables as specified in Online Appendix C2 and time-fixed effects. The full sample contains data from January 1990 to June 2013. The analysis covers all agencies that shared information on unsolicited ratings and declared at least five countries would receive unsolicited ratings. Standard errors are clustered at both the sovereign and the time level. ***,**,* indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

Column 1 replicates the main results for the four agencies (DBRS, Moody's, R&I, and S&P) that declared that they both issue at least five unsolicited and at least five solicited ratings. Column 2 adds solicitation status as a control variable and the results show that there is no significant relationship between the solicitation status and the rating outcome in any of the eight regressions. Furthermore, adding solicitation status as an additional control does not qualitatively alter the findings for our variables of interest. Note that *export interests* is significantly positive in this setting as we analyze a subsample of four agencies. Turning to column 3, where we interact solicitation status with our variables of interest, we find no statistically significant interaction term in seven of eight cases. The only exception is *US military interests (aid)* with a significantly negative interaction term (at the five-percent level). However, we do not put too much emphasis on this single case as it is only defined for the two US agencies and does not appear to reflect a general pattern. Overall, we conclude that, while solicitation status

might be an important factor for corporate ratings, it does not seem to affect sovereign ratings in a measurable way. This might be due to different incentive structures in the corporate and sovereign market. For example, one could argue that in the sovereign rating market reputational concerns to provide unbiased ratings outweigh incentives to engage in “rating shopping” and to directly seek monetary benefits.

Appendix F4: Home biases in sovereign ratings (robustness to “rating shopping”, OLS, by agency)

As a reviewer suggested, the home bias might simply reflect “rating shopping” in the sense that a sovereign requests a rating from its home or culturally closer agencies in case its unsolicited rating from the “Big Three” was downgraded. In order to test this, we re-run all agency-specific regressions of the smaller agencies reported in Online Appendix D1. Specifically, we first code a binary variable that takes the value of one if a country receives an unsolicited rating by S&P or Moody’s, respectively, and was downgraded by the respective agency during the last six months. Our results are qualitatively unaffected by this additional control (see below).

(a) Downgrade by S&P

	(1) CI CYP	(2) Dagong CHN	(3) DBRS CAN	(4) Feri DEU	(5) JCR JPN	(6) R&I JPN
(a) Same country	1.920* [0.061]	2.486* [0.093]	1.009 [0.167]	-0.282 [0.465]	0.576 [0.584]	1.993** [0.015]
(b) Export interests	-0.387*** [0.000]	-0.114 [0.191]	0.014 [0.362]	0.086 [0.238]	0.081* [0.067]	-0.001 [0.981]
(c) Bank exposure			-0.021 [0.344]	0.149*** [0.000]	0.061*** [0.009]	0.038 [0.185]
(d) Geopolitical alignment (UN)	-0.017 [0.780]	0.058*** [0.007]	0.025 [0.527]	-0.069*** [0.000]	-0.069*** [0.001]	-0.039 [0.150]
(f) Common language	-1.497 [0.146]	1.044 [0.329]	0.742* [0.077]	0.735 [0.104]		
(g) Cultural distance (language)	-0.001 [0.962]	-0.035** [0.048]	-0.074*** [0.001]	-0.019** [0.032]	-0.002 [0.869]	-0.015 [0.122]
(h) Cultural distance (ethno-racial)	-0.008 [0.318]	0.006 [0.515]	0.001 [0.952]	-0.004 [0.548]	0.003 [0.640]	-0.007 [0.492]

Notes: The dependent variable is a country’s sovereign rating on a 21-point scale. Each cell refers to a separate regression. The table displays only the coefficients on the respective variable of interest of each regression. All regressions contain the control variables as specified in Online Appendix C2, time- and agency-fixed effects. In addition, we include a dummy variable that takes a value of one if a sovereign receives an unsolicited rating by S&P and was downgraded by S&P during the last six months. Data range from January 1990 to June 2013. Standard errors are clustered at both the sovereign and the time level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

(b) Downgrade by Moody's

	(1) CI CYP	(2) Dagong CHN	(3) DBRS CAN	(4) Feri DEU	(5) JCR JPN	(6) R&I JPN
(a) Same country	1.974* [0.052]	2.527* [0.087]	0.976 [0.181]	-0.287 [0.453]	0.587 [0.576]	2.017** [0.013]
(b) Export interests	-0.389*** [0.000]	-0.136 [0.112]	0.014 [0.361]	0.084 [0.249]	0.082* [0.065]	-0.001 [0.985]
(c) Bank exposure			-0.021 [0.347]	0.148*** [0.000]	0.060*** [0.010]	0.039 [0.185]
(d) Geopolitical alignment (UN)	-0.016 [0.791]	0.060*** [0.006]	0.022 [0.577]	-0.068*** [0.000]	-0.069*** [0.001]	-0.038 [0.155]
(f) Common language	-1.494 [0.154]	1.065 [0.311]	0.721* [0.082]	0.722* [0.095]		
(g) Cultural distance (language)	-0.002 [0.921]	-0.036** [0.043]	-0.072*** [0.001]	-0.018** [0.036]	-0.002 [0.858]	-0.015 [0.111]
(h) Cultural distance (ethno-racial)	-0.008 [0.336]	0.006 [0.529]	0.002 [0.920]	-0.004 [0.542]	0.003 [0.677]	-0.007 [0.477]

Notes: The dependent variable is a country's sovereign rating on a 21-point scale. Each cell refers to a separate regression. The table displays only the coefficients on the respective variable of interest of each regression. All regressions contain the control variables as specified in Online Appendix C2, time- and agency-fixed effects. In addition, we include a dummy variable that takes a value of one if a sovereign receives an unsolicited rating by Moody's and was downgraded by Moody's during the last six months. Data range from January 1990 to June 2013. Standard errors are clustered at both the sovereign and the time level. ***, **, * indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

Appendix F5: Downgrades by the “Big Three” and rating initiation of smaller agencies (OLS)

This appendix shows that of all smaller agencies only DRBS is slightly more likely to start providing a rating to countries that have recently been downgraded. Still, those ratings are not clearly better than those of the “Big Three.”

	(1) CI CYP	(2) Dagong CHN	(3) DBRS CAN	(4) Feri DEU	(5) JCR JPN	(6) R&I JPN
(a) Number Big Three downgrades (last 6 months)	0.018 [0.326]	-0.007 [0.836]	0.011 [0.107]	0.006 [0.267]	-0.003 [0.746]	0.041 [0.341]
(b) Dummy any Big Three downgrade (last 6 months)	0.013 [0.402]	-0.037 [0.303]	0.032** [0.023]	0.007 [0.300]	-0.016 [0.373]	0.054 [0.353]
(c) Number Big Three downgrades (last 12 months)	0.01 [0.365]	-0.006 [0.828]	0.011* [0.067]	-0.002 [0.813]	0.006 [0.579]	0.011 [0.671]
(d) Dummy any Big Three downgrade (last 12 months)	0.008 [0.542]	-0.026 [0.489]	0.022* [0.059]	-0.022 [0.107]	-0.013 [0.547]	0.019 [0.640]

Notes: The dependent variable is a dummy variable that takes a value of one in the month an agency assigns a rating to a sovereign for the first time, zero in all months before the initial rating assignment, and is set to missing afterwards. Each cell refers to a separate regression. The table displays only the coefficients on the respective variable of interest of each regression. The variables of interest are coded as follows: (a) the number of US agencies that have downgraded the sovereign over the last six months, (b) a dummy variable that takes a value of one if any US agency has downgraded the sovereign over the last six months, (c) the number of US agencies that have downgraded the sovereign over the last twelve months, and (d) a dummy variable that takes a value of one if any US agency has downgraded the sovereign over the last twelve months. All regressions contain the control variables as specified in Online Appendix C2 and time-fixed effects. Data range from January 1990 to June 2013. Standard errors are clustered at both the sovereign and the time level (with the exception of Feri which has been clustered at the sovereign level only due to the limited number of degrees of freedom). ***,**,* indicate significance at the one-percent, five-percent or ten-percent level. P-values are displayed in brackets.

With the exception of DBRS, the results show no significant relationship between initial rating assignment and the occurrence of prior downgrades by one of the “Big Three.”

	Downgrade within last 6 months	Downgrade within last 12 months
Average initial rating DBRS	18.8	18.8
Rating Fitch	19.4	19.4
Rating Moody’s	19.5	19.5
Rating S&P	18.6	18.6

Notes: This table displays the average initial ratings for DBRS, the one agency for which we find a significant positive relationship above and, as a comparison, the average rating the same countries had obtained from the US agencies at that time.

We find that initial ratings by DBRS in these cases are barely higher than S&P’s and even lower than Moody’s and Fitch’s. Thus, there is no evidence in favor of the “rating shopping” hypothesis.

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