Publication Date: 11 Jun 2018
Effective Date: 11 Jun 2018
Addendum 12 to the CRI Technical Report (Version: 2017, Update 1)

This addendum updates the Technical Report (Version: 2017, Update 1) and details the addition of Qatar to the CRI coverage. The change has been implemented as of the June calibration, which was put into effect on 11 June 2018.

I. The grouping of monthly calibration

The CRI now covers 88 stock exchanges with the addition of Qatar. In order to ensure that there are enough defaults for calibration, various economies under the CRI coverage are categorized according to similarities in their stage of economic development as well as geographic location. Within these groups the economies are combined and calibrated together.

Based on this approach, Qatar has been added to Middle East & Africa countries (in addition to Bahrain, Botswana, Egypt, Ghana ,Israel, Jordan, Kenya, Kuwait, Malawi, Mauritius, Morocco, Namibia, Nigeria, Oman, Rwanda, Saudi Arabia, South Africa, Tunisia, Uganda, United Republic of Tanzania and the United Arab Emirates) which are grouped together with the other 9 Asian countries (Bangladesh, Indonesia, Kazakhstan, Malaysia, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam) and 8 Latin American countries (Argentina, Brazil, Chile, Colombia, Jamaica, Mexico, Peru and Venezuela) to form the calibration group "emerging markets".

II. Description and summary statistics

When adding new countries to the CRI coverage, several benchmark indices are carefully selected. The details are listed in the tables below.

Economy	Qatar
ISO Code	QA
Calibration Group	Emerging
Stock Index (Period Used)	Qatar Exchange (QE) Index (1998-08-10 - Present)
Short Term Interest Rate (Period Used)	Qatar 3 Month T-Bill Auction Average Yield (2012-05-08 - Present)
Interest Rate Name (Period Used)	Qatar 3 Month T-Bill Auction Average Yield (2012-05-08 - Present)

Table 1: ISO Code, stock index and interest rates for Qatar

The following tables provide further information on the input variables included in the CRI PD model, the number of active companies, defaults and other exits.

	Min	25%	Median	75%	Max	Mean	StdDev	#Observation
DTD Level	0.3836	3.6170	5.1711	7.6540	22.4195	6.3143	3.8894	2990
DTD Trend	-6.6230	-0.9199	-0.1827	0.3317	9.3225	-0.3207	1.3163	2990
CA/CL Level	-1.1444	0.2329	0.6470	1.1670	5.0601	0.8043	0.9305	3199
CA/CL Trend	-2.1884	-0.1822	-0.0143	0.1127	2.2976	-0.0489	0.4390	3199
NI/TA Level	-0.0085	0.0021	0.0047	0.0083	0.0277	0.0057	0.0053	6733
NI/TA Trend	-0.0278	-0.0013	0.0000	0.0008	0.0270	-0.0001	0.0041	6733
Size Level	-6.0066	-1.5441	0.0700	1.0035	3.5490	-0.2002	1.6369	7092
Size Trend	-1.7777	-0.1351	-0.0203	0.1009	1.9905	-0.0194	0.2476	7092
M/B	0.1759	0.8415	1.0000	1.3212	11.4546	1.1667	0.5785	6719
Sigma	0.0243	0.0690	0.0939	0.1325	0.5331	0.1087	0.0570	6836
Cash/TA Level	-12.0430	-2.5864	-1.8615	-1.3837	-0.0085	-2.0254	1.1101	3488
Cash/TA Trend	-4.1650	-0.1823	-0.0068	0.1328	3.3289	-0.0237	0.4438	3488

Table 2: Qatar – Summary statistics of input variables (based on data from 1990 to 2018)

		Defaults		Others	
Year	Active	#	%	#	%
1990	0	0	NaN	0	NaN
1991	0	0	NaN	0	NaN
1992	0	0	NaN	0	NaN
1993	0	0	NaN	0	NaN
1994	0	0	NaN	0	NaN
1995	0	0	NaN	0	NaN
1996	0	0	NaN	0	NaN
1997	0	0	NaN	0	NaN
1998	0	0	NaN	0	NaN
1999	0	0	NaN	0	NaN
2000	1	0	0	0	0
2001	1	0	0	0	0
2002	1	0	0	0	0
2003	27	0	0	0	0
2004	29	0	0	0	0
2005	31	0	0	0	0
2006	36	0	0	0	0
2007	40	0	0	0	0
2008	43	0	0	0	0
2009	45	0	0	1	2.22
2010	45	0	0	3	6.67
2011	42	0	0	0	0
2012	42	0	0	0	0
2013	42	0	0	0	0
2014	43	0	0	0	0
2015	43	0	0	0	0
2016	45	0	0	1	2.22
2017	46	0	0	1	2.17
2018	45	0	0	0	0

Table 3: Qatar – Number of defaults and other exits from 1990 to 2018