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Addendum 2 to the CRI Technical Report, (Version: 2012, Update 2)

This document updates the Technical Report (Version: 2012, Update 2) and details the addition of Vietnam and New Zealand to the CRI coverage. These changes have been implemented as of the August calibration, which was put into effect on 15 August.

I. Changes to grouping of monthly calibration

After adding New Zealand and Vietnam, the CRI now covers 46 economies. Typically, small economies do not have enough defaults, and calibrations of these individual economies are not statistically meaningful. In order to ensure that there are enough defaults for calibration, the different economies under the CRI coverage are categorized into groups according to similarities in their stage of development and their geographic locations. Within these groups the economies are combined and calibrated together.

Based on this approach, New Zealand has been added to the group of the developed economies of Asia-Pacific (in addition to Australia, Hong Kong, Japan, Singapore, South Korea and Taiwan). Vietnam has been added to the group of the emerging economies (in addition to Indonesia, Malaysia, Philippines and Thailand) which are grouped together with the 7 Latin American countries (Argentina, Brazil, Colombia, Chile, Mexico, Peru and Venezuela) to form the calibration group “emerging markets.”

II. Descriptives and summary statistics

When adding new countries to the RMI coverage, several benchmark indexes are carefully selected. The details are listed in the table below.

Economy	New Zealand	Vietnam
ISO code	NZ	VN
Calibration Group	Developed Asia-Pacific	Emerging
Stock Exchange (Period Used)	NZX All Index (3/30/1992 – Present)	Ho Chi Minh Stock Index (7/28/2000–Present)
Short Term Interest Rate (Period Used)	New Zealand Dollar Deposit 3 Month (9/27/1988–Present)	Vietnam Interbank 3 Month (12/11/1998–Present)
Interest Rate Name (Period Used)	New Zealand Dollar Deposit 1 Year (9/27/1988–Present)	Vietnam Interbank 3 Month (12/11/1998–Present)

Table 1: ISO code, stock index and interest rates

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

	Min	25%	Median	75%	Max	Mean	StdDev	#Observations
DTD level	-1.30	2.81	4.75	6.86	18.03	5.11	3.17	15,770
DTD trend	-5.58	-0.60	0.01	0.60	5.24	0.00	1.43	15,768
CASH/TA level	0.00	0.01	0.03	0.10	0.97	0.10	0.17	16,507
CASH/TA trend	-0.42	-0.01	0.00	0.00	0.44	0.00	0.06	16,505
NI/TA level	-0.46	0.00	0.00	0.01	0.10	-0.01	0.05	16,518
NI/TA trend	-0.36	0.00	0.00	0.00	0.28	0.00	0.03	16,509
SIZE level	-5.93	-1.55	-0.08	1.03	5.12	-0.21	1.90	18,538
SIZE trend	-1.60	-0.09	0.01	0.12	1.84	0.02	0.26	18,449
M/B	0.19	0.97	1.27	1.97	14.71	1.89	2.03	16,486
SIGMA	0.01	0.05	0.08	0.12	0.45	0.10	0.07	17,281

Table 2: New Zealand - Summary statistics of input variables (based on data from April 1992 to August 2012)

		Defaults		Others	
	Active	#	%	#	%
1992	30	0	0	1	3.23
1993	36	0	0	0	0.00
1994	41	0	0	1	2.38
1995	43	0	0	2	4.44
1996	46	0	0	1	2.13
1997	50	0	0	0	0.00
1998	50	0	0	1	1.96
1999	59	0	0	0	0.00
2000	66	0	0	1	1.49
2001	72	0	0	0	0.00
2002	78	0	0	0	0.00
2003	92	0	0	0	0.00
2004	103	0	0	1	0.96
2005	110	0	0	0	0.00
2006	115	0	0	0	0.00
2007	122	0	0	3	2.40
2008	117	0	0	16	12.03
2009	118	0	0	11	8.53
2010	120	0	0	12	9.09
2011	126	0	0	12	8.70
2012	129	0	0	7	5.15

Table 3: New Zealand - number of defaults and other exists from April 1992 to August 2012

	Min	0.25	Median	0.75	Max	Mean	StdDev	#Observations
DTD level	-1.86	1.10	1.81	2.88	22.49	2.15	1.68	26,998
DTD trend	-6.48	-0.44	-0.12	0.17	6.48	-0.13	0.66	26,998
CASH/TA level	0.00	0.04	0.08	0.17	0.90	0.13	0.14	27,407
CASH/TA trend	-0.32	-0.02	0.00	0.01	0.37	0.00	0.05	27,407
NI/TA level	-0.04	0.00	0.00	0.01	0.03	0.01	0.01	27,945
NI/TA trend	-0.03	0.00	0.00	0.00	0.03	0.00	0.01	27,945
SIZE level	-4.93	-1.07	-0.15	0.85	6.16	0.01	1.58	32,743
SIZE trend	-1.75	-0.20	-0.04	0.09	2.22	-0.05	0.27	32,586
M/B	0.20	0.84	0.98	1.24	18.99	1.20	0.84	27,378
SIGMA	0.01	0.09	0.12	0.16	0.43	0.13	0.06	28,119

Table 4: Vietnam - Summary statistics of input variables (based on data from August 2000 to August 2012)

	Active	Defaults		Others	
		#	%	#	%
2000	5	0	0	0	0.00
2001	15	0	0	0	0.00
2002	21	0	0	0	0.00
2003	23	0	0	0	0.00
2004	27	0	0	0	0.00
2005	33	0	0	0	0.00
2006	174	0	0	0	0.00
2007	253	0	0	4	1.56
2008	311	0	0	1	0.32
2009	451	0	0	34	7.01
2010	715	0	0	30	4.03
2011	754	0	0	60	7.37
2012	752	0	0	39	4.93

Table 5: Vietnam - Number of defaults and other exits from August 2000 to August 2012.