

FDIC Certificate # 17534
OCC Charter # 14761
Public Report

FRB District/ID: RSSD 4 / 280110
County: CUYAHOGA

KEYBANK NATIONAL ASSOCIATION; CLEVELAND, OH
Summary Ratios--Page 1

Summary Ratios
4/3/2020 7:56:02 AM

	12/31/2019			12/31/2018			12/31/2017			12/31/2016			12/31/2015		
Earnings and Profitability	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 2	PCT
Percent of Average Assets:															
Interest Income (TE)	3.67	3.47	57	3.57	3.33	61	3.31	2.92	73	2.49	2.60	36	2.85	3.33	20
- Interest Expense	0.80	0.92	46	0.59	0.70	38	0.37	0.41	57	0.24	0.30	40	0.23	0.29	50
Net Interest Income (TE)	2.87	2.54	69	2.98	2.61	61	2.94	2.49	80	2.25	2.29	36	2.62	3.02	25
+ Noninterest Income	1.37	1.56	50	1.60	1.63	53	1.58	1.62	57	1.29	1.63	36	1.65	1.01	82
- Noninterest Expense	2.35	2.47	46	2.58	2.52	50	2.75	2.51	69	2.48	2.43	48	2.67	2.56	62
- Provision: Loan & Lease Losses	0.31	0.21	76	0.18	0.16	57	0.17	0.16	57	0.20	0.17	56	0.16	0.14	60
- Provision: Credit Loss Oth Assets	N/A	0.00	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	0.00	N/A
Pretax Operating Income (TE)	1.59	1.47	57	1.81	1.62	73	1.60	1.48	57	0.86	1.35	16	1.45	1.39	50
+ Realized Gains/Losses Sec	0.01	0.01	69	0.00	0.00	34	0.00	0.01	34	0.00	0.01	20	0.00	0.01	32
+ Unrealized Gains / Losses Equity Sec	0.00	0.00	57	0.00	0.00	65	N/A	0.00	N/A	N/A	0.00	N/A	N/A	0.00	N/A
Pretax Net Operating Income (TE)	1.60	1.48	57	1.81	1.62	73	1.60	1.49	65	0.86	1.36	16	1.45	1.41	50
Net Operating Income	1.33	1.16	65	1.49	1.29	73	1.06	1.01	50	0.66	0.93	20	1.05	0.92	67
Adjusted Net Operating Income	1.33	1.19	65	1.49	1.30	65	1.06	1.00	53	0.69	0.94	24	1.03	0.95	56
Net Inc Attrib to Min Ints	0.00	0.00	50	0.00	0.00	46	0.00	0.00	42	0.00	0.00	44	0.00	0.00	79
Net Income	1.33	1.16	65	1.50	1.28	76	1.07	1.00	50	0.66	0.93	20	1.05	0.91	67
Adjusted Sub S Net Income	1.33	1.16	65	1.50	1.28	76	1.07	1.00	50	0.66	0.93	20	1.05	0.91	67
Margin Analysis:															
Avg Earning Assets to Avg Assets	91.35	91.67	50	91.62	91.72	50	91.58	91.50	57	91.60	91.31	60	91.32	92.77	34
Avg Int-Bearing Funds to Avg Assets	85.01	79.08	88	84.97	78.27	92	85.12	77.93	96	85.41	77.38	92	84.95	79.74	85
Int Inc (TE) to Avg Earn Assets	4.02	3.78	61	3.89	3.63	57	3.62	3.19	65	2.72	2.86	36	3.12	3.60	23
Int Expense to Avg Earn Assets	0.88	1.00	46	0.64	0.76	46	0.41	0.44	57	0.26	0.32	40	0.25	0.31	50
Net Int Inc-TE to Avg Earn Assets	3.14	2.77	65	3.25	2.85	61	3.21	2.73	76	2.46	2.51	36	2.87	3.27	25
Loan & Lease Analysis:															
Net Loss to Average Total LN&LS	0.45	0.33	73	0.27	0.27	53	0.25	0.28	46	0.25	0.29	40	0.27	0.17	79
Earnings Coverage of Net Losses (X)	6.27	60.91	32	11.03	114.26	48	10.24	17.02	58	6.22	18.43	20	8.80	42.49	22
LN&LS Allowance to LN&LS Not HFS	0.95	0.92	34	0.99	0.94	46	1.02	0.97	46	1.01	1.02	44	1.34	1.09	82
LN&LS Allowance to Net Losses (X)	2.14	6.38	20	3.68	7.32	44	3.96	4.29	50	3.98	4.27	54	5.01	12.50	24
LN&LS Allowance to Total LN&LS	0.94	0.91	34	0.98	0.93	46	1.01	0.96	46	0.99	1.01	40	1.32	1.06	81
Total LN&LS-90+ Days Past Due	0.12	0.22	42	0.15	0.24	42	0.12	0.28	46	0.13	0.33	48	0.16	0.15	75
-Nonaccrual	0.73	0.56	76	0.64	0.55	65	0.64	0.64	53	0.74	0.80	44	0.59	0.66	39
-Total	0.85	0.80	57	0.79	0.81	46	0.76	0.97	38	0.87	1.20	28	0.75	0.84	45
Liquidity															
Net Non Core Fund Dep New \$250M	6.76	16.44	23	9.35	15.24	30	9.00	13.47	38	8.48	13.15	48	6.91	10.56	29
Net Loans & Leases to Assets	66.91	54.17	76	65.91	54.20	73	64.78	53.74	69	65.36	52.95	72	66.09	65.60	42
Capitalization															
Net Core Leverage Ratio	9.9093	9.56	61	9.9266	9.56	61	9.9072	9.72	57	9.4612	9.52	48	9.8945	9.59	60
Total Capital Ratio	12.6867	14.13	26	12.6843	14.28	19	12.8566	14.60	23	12.3579	14.35	16	12.3426	13.74	35
Cash Dividends to Net Income	63.42	72.08	38	81.84	77.02	50	52.81	65.75	38	71.00	61.29	60	103.25	45.10	89

4/3/2020

Print UBPR Report - FFIEC Central Data Repository's Public Data Distribution

Retained Earnings to Avg Total Equity	4.25	1.41	84	2.44	2.12	53	4.47	2.23	80	1.75	3.04	40	-0.31	4.06	14
Rest+Nonac+RE Acq to Eqcap+ALLL	5.27	4.80	50	4.89	5.51	42	4.68	6.23	34	5.65	7.11	32	4.82	6.97	32
Growth Rates															
Total Assets	3.92	6.91	42	1.63	3.76	42	1.04	2.79	34	44.42	4.76	96	1.37	10.90	10
Tier One Capital	3.80	5.84	50	3.54	1.82	69	5.40	3.91	65	35.25	4.03	96	0.31	12.85	6
Net Loans & Leases	5.49	6.10	57	3.40	4.54	46	0.15	2.98	42	42.83	3.13	96	3.28	13.39	12
Short Term Investments	-34.87	1.03	11	-42.88	22.97	3	47.09	-1.61	96	19.60	11.65	60	-43.38	21.28	15
Short Term Non Core Funding	-29.93	6.28	11	9.81	20.85	34	32.44	18.68	76	118.58	2.98	96	-10.95	15.66	23
Average Total Assets	142,501,158			136,678,774			133,167,310			133,823,687			91,908,806		
Total Equity Capital	16,969,468			15,554,378			15,169,113			14,564,159			9,955,029		
Net Income	1,898,433			2,046,558			1,420,090			880,231			968,499		
Number of banks in Peer Group			25			25			25			24			23

FDIC Certificate # 17534
OCC Charter # 14761
Public Report

FRB District/ID_RSSD 4 / 280110
County: CUYAHOGA

KEYBANK NATIONAL ASSOCIATION; CLEVELAND, OH
Noninterest Income, Expenses and Yields--Page 3

Non Int Inc, Exp, Yields
4/3/2020 7:56:03 AM

	12/31/2019			12/31/2018			12/31/2017			12/31/2016			12/31/2015		
Percent of Average Assets	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 2	PCT
Personnel Expense	1.30	1.26	46	1.47	1.30	57	1.49	1.27	73	1.34	1.20	60	1.49	1.22	71
Occupancy Expense	0.26	0.25	34	0.29	0.26	57	0.32	0.27	69	0.29	0.26	60	0.36	0.28	68
Other Oper Exp (Incl Intangibles)	0.79	0.93	30	0.82	0.94	30	0.94	0.94	38	0.85	0.91	40	0.82	0.97	45
Total Overhead Expense	2.35	2.47	46	2.58	2.52	50	2.75	2.51	69	2.48	2.43	48	2.67	2.56	62
Overhead Less Nonint Inc	0.98	0.85	50	0.99	0.81	50	1.16	0.82	65	1.19	0.75	76	1.01	1.48	17
Other Income & Expense Ratios:															
Efficiency Ratio	55.36	59.43	42	56.48	58.58	38	60.75	60.49	50	70.07	61.70	76	62.41	60.97	48
Avg Personnel Exp Per Empl(\$000)	111.87	135.44	50	113.20	127.39	46	102.61	123.00	38	94.65	120.87	28	100.54	102.99	66
Assets Per Employee (\$Million)	8.65	15.76	46	7.78	14.71	42	7.04	15.29	15	7.08	20.70	24	6.84	12.76	38
Yield on or Cost of:															
Total Loan & Leases (TE)	4.65	4.61	46	4.52	4.44	57	4.24	3.96	76	3.22	3.58	24	3.58	4.23	17
Loans in Domestic Offices	4.67	4.63	50	4.54	4.46	61	4.21	3.95	69	3.17	3.57	24	3.55	4.19	18
Real Estate	4.75	4.22	92	4.68	4.18	92	4.39	3.89	92	3.17	3.69	12	3.87	4.13	30
Secured by 1-4 Fam Resi Prop	4.58	4.06	84	4.49	4.05	84	4.19	3.85	75	3.29	3.67	13	4.02	4.09	51
All Other Loans	4.92	4.53	76	4.86	4.42	88	4.59	3.94	92	3.06	3.69	16	3.67	4.10	22
Sec Real Estate															
Commercial & Industrial	4.66	4.60	53	4.47	4.35	57	4.09	3.78	61	3.13	3.39	32	3.35	3.82	22
Individual	4.57	5.60	40	4.42	5.30	46	4.32	4.72	50	3.16	4.21	36	3.39	5.03	26
Credit Card	11.51	11.39	40	11.40	11.39	30	11.22	11.18	45	9.07	10.86	15	10.77	8.43	65
Agricultural	5.31	4.95	77	4.82	4.71	57	4.24	3.96	73	3.22	3.65	38	3.38	3.87	30
Loans in Foreign Offices	3.18	3.64	31	3.25	3.83	47	3.18	2.99	61	4.01	2.75	83	3.60	4.71	33
Total Investment Securities (TE)	2.48	2.58	42	2.27	2.50	26	2.02	2.28	30	1.54	2.07	16	2.07	2.23	35
Total Investment Securities (Book)	2.48	2.56	46	2.27	2.47	26	2.02	2.22	34	1.54	2.02	20	2.07	2.09	48
US Treas & Agency (Excl MBS)	2.04	2.12	42	1.77	1.97	30	1.66	1.63	46	0.40	1.40	8	0.90	1.42	22
Mortgage Backed Securities	2.48	2.67	20	2.27	2.58	15	2.02	2.39	15	1.54	2.16	16	2.07	2.12	46
All Other Securities	2.52	2.85	28	2.67	2.78	34	2.34	2.56	38	3.96	2.33	88	2.71	2.54	48
Interest-Bearing Bank Balances	2.10	1.82	61	1.85	1.68	53	1.11	0.98	69	0.58	0.50	80	0.26	0.25	51
Federal Funds Sold & Resales	2.23	3.29	31	1.82	2.52	20	0.87	1.64	15	0.69	1.06	31	0.06	0.50	29
Total Interest Bearing Deposits	0.77	0.94	46	0.49	0.67	30	0.27	0.36	50	0.17	0.25	40	0.15	0.28	25
Transaction accounts	8.27	2.01	96	4.40	1.51	96	1.57	0.71	88	0.63	0.30	88	1.30	0.23	91
Other Savings	0.46	0.71	38	0.29	0.52	26	0.16	0.25	42	0.09	0.15	32	0.08	0.17	26
Deposits															
Time Deposits	2.15	2.01	61	1.62	1.50	50	1.11	1.01	57	0.79	0.82	48	0.94	0.78	69
Foreign Office Deposits	N/A	2.76	N/A	N/A	1.00	N/A	N/A	0.49	N/A	N/A	0.25	N/A	0.23	0.32	44
Federal Funds Purchased & Repos	0.66	2.63	7	1.13	1.83	20	0.24	0.78	15	0.08	0.36	13	0.04	0.49	10
Other Borrowed Money	2.86	3.16	61	2.61	3.29	50	1.90	2.09	61	1.27	1.89	48	0.75	1.48	38
Subord Notes & Debentures	3.98	4.45	54	4.32	4.21	65	4.31	3.65	75	3.78	3.66	65	4.37	4.25	54
Other Interest Expense	N/A	0.00	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	0.00	N/A	N/A	0.00	N/A
All Interest-Bearing Funds	0.95	1.15	30	0.69	0.89	30	0.44	0.52	50	0.28	0.39	36	0.27	0.37	43
Memo: Time Deps Over \$100M	N/A	0.00	N/A	N/A	0.00	N/A	N/A	0.00	N/A	1.21	0.89	75	1.66	0.76	96
Memo: Time Deps Over \$250M	1.32	2.01	16	1.35	1.57	44	1.48	1.04	88	N/A	0.00	N/A	N/A	0.00	N/A
Non-interest Income & Expenses															
Fiduciary Activities		237,446			233,938			219,253			203,550			202,194	
Deposit Service Charges		337,206			348,917			349,552			295,163			255,731	

FDIC Certificate # 17534
OCC Charter # 14761
Public Report

FRB District/ID_RSSD 4 / 280110
County: CUYAHOGA

KEYBANK NATIONAL ASSOCIATION; CLEVELAND, OH
Interest Rate Risk Analysis as a Percent of Assets--Page 9

Interest Rate Risk
4/3/2020 7:56:05 AM

	<u>12/31/2019</u>			<u>12/31/2018</u>			<u>12/31/2017</u>			<u>12/31/2016</u>			<u>12/31/2015</u>		
Long Assets Insts w/Options	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 2	PCT
Mortgage Loans & Pass Thrus	8.60	17.92	11	8.01	17.20	11	7.79	17.07	11	8.27	16.89	12	8.67	17.68	17
Loans & Securities Over 15 Years	4.70	10.22	19	4.00	9.84	19	4.10	9.20	23	2.82	8.36	20	4.35	5.07	59
Loans & Securities 5-15 Years	3.07	4.50	42	3.03	4.29	38	2.63	4.50	34	2.37	4.42	32	3.79	6.50	34
Other Loans and Securities	60.88	52.44	69	60.80	53.08	65	59.45	52.50	61	59.63	52.27	64	61.06	60.73	40
Loans & Securities Over 15 Years	0.85	1.32	38	0.50	1.14	19	0.66	1.16	26	1.27	1.20	56	2.05	1.79	68
Loans & Securities 5-15 Years	7.93	6.96	53	7.04	6.47	50	6.73	6.81	42	6.48	6.87	52	5.38	8.74	28
Total Loans & Securities Over 15 Years	5.55	11.89	19	4.50	10.98	19	4.75	10.39	19	4.08	9.67	20	6.40	7.44	56
CMO'S Total	19.82	5.40	96	19.75	5.38	96	19.85	5.54	96	20.28	5.22	96	17.38	5.39	92
Avg Life Over 3 Years	13.83	4.22	96	17.75	4.57	96	17.69	4.48	96	17.34	4.25	96	13.80	3.86	93
Structured Notes	0.00	0.00	92	0.00	0.00	88	0.00	0.00	88	0.00	0.00	88	0.00	0.03	84
Mortgage Servicing (FV)	0.50	0.20	76	0.59	0.25	76	0.42	0.21	73	0.37	0.21	72	0.45	0.10	89
Total	0.50	0.20	76	0.59	0.26	76	0.42	0.23	73	0.37	0.23	68	0.46	0.17	82
Overall Risk Indicators															
Available for Sale	15.23	16.84	42	14.07	15.77	46	13.35	16.19	34	15.04	16.77	48	15.27	14.12	60
Held to Maturity	7.02	5.36	53	8.35	6.50	53	8.72	6.04	65	7.62	5.41	68	5.26	3.59	65
Off Balance Sheet	64.38	76.41	61	62.35	78.47	53	59.12	79.73	46	56.72	81.89	44	65.50	25.98	95
Unrealized Appreciation/Depreciation	0.03	0.07	38	-0.29	-0.12	7	-0.20	-0.05	7	-0.17	-0.04	8	-0.05	0.03	9
Unrealized App/Dep % Tier One Cap	0.35	0.83	38	-2.93	-1.37	15	-2.03	-0.54	7	-1.81	-0.42	8	-0.53	0.33	9
Contractual Mat/Reprice Data															
Loans/Securities Over 3 Year	35.73	35.75	42	38.05	35.06	50	37.07	34.89	50	35.40	33.99	48	33.47	39.66	29
Liabilities Over 3 Year Net Over 3 Year Position	1.24	1.33	61	2.40	1.46	73	2.93	1.41	80	2.34	1.61	68	3.40	1.50	85
	34.49	34.43	46	35.65	33.75	46	34.15	33.59	46	33.06	32.53	48	30.06	37.76	26
Loans/Securities Over 1 Year	47.20	43.41	65	45.73	42.16	57	44.38	41.84	65	45.83	40.97	72	41.92	51.04	23
Liabilities Over 1 Year Net Over 1 Year Position	4.53	4.29	65	7.61	4.71	76	8.51	4.05	88	8.08	4.32	84	7.73	5.26	75
	42.67	39.20	65	38.12	37.42	46	35.87	37.93	42	37.76	36.97	48	34.19	45.37	20
Non-Maturity Deposits	72.65	60.77	76	70.72	60.18	69	70.71	61.34	61	72.40	61.35	80	73.32	67.62	65
Non-Maturity Deps % Long Assets	203.30	177.18	73	185.88	177.28	61	190.72	181.17	50	204.51	183.22	76	219.09	188.82	68
Net Over 3 Year Position	-36.91	-25.84	19	-32.67	-25.93	26	-33.63	-27.28	34	-37.00	-27.51	24	-39.85	-27.36	28
As % Tier 1 Capital															
Structured Notes	0.00	0.00	92	0.00	0.04	88	0.00	0.04	88	0.01	0.05	88	0.01	0.33	84
Mortgage Servicing (FV)	5.07	2.16	73	5.96	2.78	73	4.38	2.36	73	3.96	2.29	72	4.59	1.02	89
Total	5.07	2.20	73	5.96	2.90	73	4.38	2.48	73	3.97	2.51	68	4.61	1.91	82

FDIC Certificate # 17534
OCC Charter # 14761
Public Report

FRB District/ID: RSSD 4 / 280110
County: CUYAHOGA

KEYBANK NATIONAL ASSOCIATION; CLEVELAND, OH
Capital Analysis--Page 11

Capital Analysis-a
4/3/2020 7:56:05 AM

	<u>12/31/2019</u>			<u>12/31/2018</u>			<u>12/31/2017</u>			<u>12/31/2016</u>			<u>12/31/2015</u>		
	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 1	PCT	BANK	PG 2	PCT
Capital Ratios															
Percent of Bank Equity:															
Net Loans & Leases (x)	5.65	4.69	69	5.85	4.71	76	5.80	4.57	76	6.03	4.51	84	6.18	5.91	57
Subord Notes & Debentures	7.41	4.83	65	5.52	5.01	53	6.35	5.44	50	8.05	6.74	52	11.24	1.85	90
Com RE & Related Ventures	100.46	67.36	84	110.72	68.78	84	117.75	68.28	88	133.27	68.14	92	114.03	148.38	34
Percent of Average Bank Equity:															
Net Income	11.62	10.19	53	13.45	11.31	69	9.48	8.72	50	6.04	8.17	28	9.67	8.21	67
Dividends	7.37	8.01	42	11.01	9.21	53	5.01	5.92	42	4.29	4.74	40	9.98	3.60	92
Retained Earnings	4.25	1.41	84	2.44	2.12	53	4.47	2.23	80	1.75	3.04	40	-0.31	4.06	14
Other Capital Ratios:															
Dividends to Net Operating Income	63.73	78.52	36	82.11	76.83	53	53.10	68.66	36	71.09	61.03	60	103.35	46.56	88
Bank Eq Cap + Min Int to Assets	11.83	11.39	57	11.27	11.47	46	11.17	11.78	34	10.84	11.76	36	10.70	11.50	40
Growth Rates:															
Total Equity Capital	9.10	6.98	73	2.54	1.43	61	4.15	3.26	61	46.30	3.38	96	-0.43	10.99	9
Equity Growth	5.17	0.39	73	0.91	-2.05	65	3.11	0.68	73	1.88	-1.41	72	-1.79	0.02	40
Less Asst Growth															
Intang Assets %															
Bank Equity															
Mortgage Servicing Rights	3.45	1.56	73	3.47	2.07	69	2.92	1.76	73	2.64	1.71	68	3.23	0.75	87
Goodwill	14.02	17.60	38	14.35	18.31	38	14.86	18.23	38	15.15	19.49	40	8.25	15.15	37
Purch Credit Card Relations	N/A	0.00	N/A	N/A	0.00	N/A	0.17	0.10	73	0.29	0.14	76	0.45	0.02	95
All Other Intangibles	N/A	0.00	N/A	N/A	0.00	N/A	2.37	0.93	80	2.33	0.94	84	0.14	0.84	28
Total Intangibles	18.91	20.49	38	19.73	21.87	34	20.32	21.62	34	20.41	23.13	36	12.07	17.52	40
Tier One Leverage Ratio	9.9093	9.56	61	9.9266	9.56	61	9.9072	9.72	57	9.4612	9.52	48	9.8945	9.59	60
Standardized Capital Ratios															
Com Equity Tier 1 Cap Ratio	10.9585	12.53	26	11.1577	12.65	30	11.2692	12.91	23	10.7560	12.70	24	10.8584	12.41	35
Tier One Capital Ratio	10.9585	12.73	23	11.1577	12.81	26	11.2692	13.07	19	10.7560	12.80	24	10.8584	12.58	29
Total Capital Ratio	12.6867	14.13	26	12.6843	14.28	19	12.8566	14.60	23	12.3579	14.35	16	12.3426	13.74	35
Adv App Cap Ratios															
Com Equity Tier 1 Cap Ratio	N/A	16.68	N/A	N/A	16.27	N/A	N/A	16.06	N/A	N/A	15.30	N/A	N/A	35.42	N/A
Tier 1 Capital Ratio	N/A	16.91	N/A	N/A	16.49	N/A	N/A	16.11	N/A	N/A	15.35	N/A	N/A	35.42	N/A
Total Capital Ratio	N/A	18.10	N/A	N/A	17.76	N/A	N/A	17.08	N/A	N/A	16.59	N/A	N/A	35.66	N/A
End of Period Capital (\$000)															
Perpetual Preferred		0			0			0			0			0	
+ Common Stock		50,000			50,000			250,000			250,000			50,000	
+ Surplus		10,013,409			9,979,885			9,722,865			9,636,252			5,555,916	
+ Retained Earnings		6,522,806			5,943,842			5,561,863			4,856,015			4,376,539	
+ Accum Other Comp Income		383,253			-419,349			-365,615			-178,108			-27,426	
+ Other Equity Capital Comp		0			0			0			0			0	
Total Bank Equity Capital		16,969,468			15,554,378			15,169,113			14,564,159			9,955,029	
Minority Interest Cons Subs		186			1,588			1,658			1,658			1,376	
Total Bank Capital & Min Int		16,969,654			15,555,966			15,170,771			14,565,817			9,956,405	
Subordinated Notes & Debentures		1,258,226			858,758			963,960			1,173,000			1,118,857	

Table 25

Average Cumulative Default Rates For Corporates By Region (1981-2018)

(%)	--Time horizon (years)--														
Rating	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
U.S.															
AAA	0.00	0.04	0.17	0.29	0.41	0.54	0.58	0.66	0.75	0.83	0.88	0.92	0.97	1.06	1.16
AA	0.03	0.08	0.17	0.30	0.43	0.58	0.72	0.83	0.92	1.03	1.12	1.20	1.29	1.36	1.45
A	0.07	0.19	0.34	0.52	0.69	0.90	1.12	1.33	1.56	1.78	1.99	2.18	2.37	2.53	2.71
BBB	0.20	0.54	0.92	1.41	1.92	2.44	2.90	3.37	3.82	4.26	4.70	5.02	5.31	5.64	5.97
BB	0.75	2.36	4.28	6.17	7.89	9.54	10.93	12.22	13.36	14.39	15.24	16.02	16.74	17.33	17.95
B	3.63	8.45	12.71	16.08	18.70	20.85	22.60	23.98	25.21	26.36	27.32	28.06	28.73	29.35	29.96
CCC/C	28.89	39.73	45.37	48.83	51.42	52.62	54.10	55.02	55.89	56.58	57.25	57.79	58.36	58.89	58.89
Investment grade	0.11	0.30	0.53	0.82	1.12	1.42	1.71	1.99	2.27	2.54	2.80	3.01	3.20	3.40	3.61
Speculative grade	4.07	8.00	11.43	14.21	16.47	18.35	19.93	21.24	22.41	23.47	24.36	25.10	25.78	26.37	26.95
All rated	1.79	3.54	5.09	6.39	7.47	8.40	9.18	9.85	10.46	11.02	11.51	11.90	12.26	12.59	12.92
Europe															
AAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
AA	0.00	0.03	0.06	0.13	0.20	0.27	0.31								
A	0.04	0.08	0.12	0.17	0.26	0.34	0.45								
BBB	0.07	0.20	0.33	0.46	0.56	0.76	0.95								
BB	0.35	1.15	1.94	2.67	3.71	4.62	5.49								
B	2.14	5.38	8.30	10.55	12.43	13.69	14.48								
CCC/C	25.47	34.02	37.93	41.52	43.37	43.37	44.23								
Investment grade	0.04	0.10	0.17	0.25	0.34	0.45	0.56								
Speculative grade	2.61	5.07	7.08	8.68	10.14	11.16	11.99								
All rated	0.69	1.34	1.86	2.27	2.62	2.90	3.13								
Emerging markets															
AAA	0.00	0.00	0.00	0.00	0.00										
AA	0.00	0.00	0.00	0.00	0.00										
A	0.04	0.04	0.04	0.04	0.04										
BBB	0.13	0.56	1.08	1.68	2.24										
BB	0.57	1.73	3.00	4.28	5.26										
B	3.04	6.36	8.86	10.81	12.10										
CCC/C	18.36	22.82	25.17	25.71	26.32										
Investment grade	0.09	0.37	0.70	1.09	1.45										
Speculative grade	2.64	4.90	6.75	8.27	9.35										