

## Understanding the Changes in Barclays Intermediate Government Credit Index

The Investment Grade credit universe has undergone a transformation over the last five years. The level of issuance and the number of issuers has increased substantially. As a result, the number of corporate issues in the Barclays Intermediate Government Credit Index increased accordingly. As of December 31, 2008 the number of corporate issues in the Index was 2,262. At the end of 2013 the number was 3,457, an increase of 1,195 or 52.8%.

Issuer type by quality has also transformed. Of the total issue increase in the index, 60.4% of the increase was in BBB-rated bonds. This degree of issuance increased the percent of BBB-rated issues in the Index by 6.2%. The opportunity available for lower quality issuers to come to market and lock in such inexpensive relative cost of capital was unprecedented. Demand for yield provided the momentum that enabled the placement of all the issuance.

### Barclays Intermediate Government Credit Index

	# of Corporate Issues	# of Credit Issues	# of AAA Rated Issues	# of AA Rated Issues	# of A Rated Issues	# of BBB Rated Issues
12/31/2008	2262	2521	187	228	1029	1077
12/31/2013	3457	3899	191	396	1403	1909
# Increase	1195	1378	4	168	374	832
Change as a % of Credit Issues			-2.5%	1.1%	-4.8%	6.2%

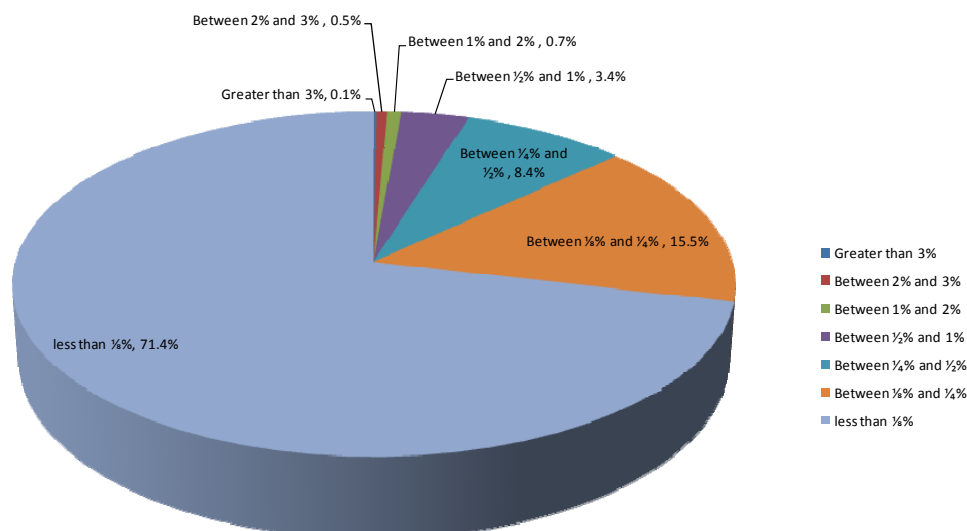
Presently, there are 730 issuers of corporate debt in the Index. The 10 largest issuers (Bank of America, JP Morgan, Goldman Sachs, General Electric, Morgan Stanley, Citigroup, Verizon, Wells Fargo, AT&T, and Ford) make up 19.5% of the corporate portion of the Index. The bottom 478 issuers make up the same concentration, mostly small, lower quality issuers with the average quality at Baa2/BBB. Comparatively, there were 537 total issuers at the end of 2008. Since then there was a 35.9% increase in the number of total investment grade corporate issuers skewed highly to lower quality investment grade credits. Replication of this number of issuers in a portfolio is increasingly challenging. In particular, 86.9% of the issuers each contribute less than ¼ of 1 percent to the corporate portion of the Index (each contribute less than ⅓ of 1 percent to the Intermediate Government Credit Index), and the majority are thinly traded, lower quality credits.

### Individual Issuer Concentrations as a Percentage of the Barclays Intermediate Corporate Index

Individual Issuers as a % of Corporates	# of Corporate Issuers	% of # of Corporate Issuers	Total % Weight	Weighted Ave YTM	Weighted Ave Duration	Moody's Weighted Ave Quality	S&P Weighted Ave Quality
Greater than 3%	1	0.1%	3.13%	2.18	3.72	Baa1	A-
Between 2% and 3%	4	0.5%	9.32%	2.27	3.96	Baa1	A
Between 1% and 2%	5	0.7%	7.06%	2.24	4.08	Baa2	BBB+
Between ½% and 1%	25	3.4%	15.61%	2.03	4.07	A2	A
Between ¼% and ½%	61	8.4%	21.42%	2.40	4.31	A3	A-
Between ⅛% and ¼%	113	15.5%	19.53%	2.60	4.60	Baa1	BBB+
less than ⅛%	521	71.4%	23.95%	3.04	4.83	Baa2	BBB
	730	100.0%	100.0%	2.51	4.38	Baa1	A-

Source: Barclays, CMS Bondedge

## Individual Issuer Concentrations as a Percentage of the Barclays Intermediate Corporate Index



Issuance in non-corporate bonds included in Barclays credit orientated indices has also increased. As of December 31, 2008 the number of issues in the Barclays Intermediate Government Credit Index was 259. At the end of 2013 the number was 442, an increase of 183 or 70.6 percent. The allocation of the non-corporate sector in the Barclays Intermediate Government Credit Index is 7.6%. It was 6.7% in 2008.

The Barclays Intermediate Government Credit Index as of December 31, 2008 had a total of 3,407 issues. At the end of 2013 the total number of issues was 4,759, an increase of 1,352 or 39.7 percent. Of the 1,352 increased issues, 1,378 were corporate and non-corporate issues (the total Government portion actually decreased by 26). The true challenge arises in that the Credit portion of the Index (corporate and non-corporate) is 36.6%, but it now holds 81.9% of the issues. As mentioned previously, 86.9% of those issues are fractionally such a small portion of the index that they can not be captured individually. Replication requires managers to select a representative sample of this broad portion of the index. Material Index performance deviation can occur if the representative sample performance is inconsistent with the index.

### Barclays Intermediate Government Credit Index Holdings

	12/31/2008	12/31/2013	5yr Change	5yr % Change
Treasury	108	200	92	85.2%
Agency	778	660	-118	-15.2%
Total Government	886	860	-26	-2.9%
Corporate	2262	3457	1195	52.8%
Non-Corporate	259	442	183	70.7%
Total Credit	2521	3899	1378	54.7%
<b>Total</b>	<b>3407</b>	<b>4759</b>	<b>1352</b>	<b>39.7%</b>

### Annual Performance of Barclays Investment Grade Corporate and Non-Corporate Sectors (%)

	2009	2010	2011	2012	2013	Annualized
Intermediate Treasury	-1.41	5.29	6.57	1.71	-0.78	2.79
<b>Credit</b>						
Intermediate AAA Rated	1.87	4.85	4.56	3.19	-0.54	3.47
Intermediate AA Rated	8.63	6.25	4.33	5.21	-0.70	5.91
Intermediate A Rated	15.34	7.98	4.83	9.12	-0.10	9.22
Intermediate BBB Rated	27.01	9.39	6.91	9.64	0.05	12.98
<b>Non-Corporate</b>						
Intermediate Non-Corporate	5.20	5.67	4.77	5.26	-1.14	4.92

Examining the performance of the Barclays Intermediate Government Credit Index over the last five years shows consistent excess returns were provided by the lowest quality BBB-rated portion of the Index. Without capturing a perfectly representative sample of the 1,909 issues in this allocation, the probability of capturing all of the return was unlikely given the fractionally sized issuers were large contributors to return. In fact, to capture the index return over this period of time would have been to pick a perfect BBB-rated representative sample, exclude non-performing sectors, or deviate significantly from the structure of the benchmark into similar performing non-benchmark sectors.