
To: Office of the Chairman

From: The Division of Economic and Risk Analysis

Date: July 10, 2013

Re: The Exposure Money Market Funds Have to the Parents of Issuers

The Division of Economic and Risk Analysis has studied exposure in the money market fund industry. In this memo, we present our analysis of the exposure money market funds have to the parents of issuers. In our companion memo, we present our analysis of the exposure money market funds have to the parents of guarantors.

Data and Methodology

We collect information from Form N-MFP submissions between November 2010 and November 2012 for all money market funds. From these filings, we extract the reported portfolio information for each money market fund, including the fund-identified type of each security (item 31). We exclude from our database any security identified as Variable Rate Demand Notes, Other Municipal Debt, Treasury Repurchase Agreement, Government Repurchase Agreement, or Asset Backed Commercial Paper with a guarantee or demand feature. Using this information, we form two subsets of securities for this memo. The first subset, *All Securities*, consists of all securities in our database as previously defined. The second subset, *All Securities Excluding Public Debt*, is identical to the first subset except that it also excludes securities that we identify as debt from either the US Treasury or another government entity (Fannie Mae, Freddie Mac, Ginnie Mae, Farmer Mac, Federal Home Loan Banks, Federal Farm Credit Banks, US Department of Education, FDIC, and other US government agencies).

First, we merge All Securities with a database of issuers, matching 93% of the securities.¹ We match the remaining 7%, by hand, based on the name of the issuer or the title of the issue.² Second, we hand-match each of the 2748 unique issuers to 1028 unique parents.³

The resulting database includes approximately 70% of the industry's \$2.9 trillion in November 2012. All reported dollar figures are stated in terms of amortized cost. All figures and tables are based on a monthly average of 641 funds.

¹ Standard and Poor's CUSIP Master File database links CUSIPs to the issuer. We attempt to link every reported Form N-MFP security that has a CUSIP with the S&P Master File database, using the first six digits. (CUSIPs have nine digits. The first six digits uniquely identify the issuer; the next two identify the issue; and the last one is an automatically generated checksum.)

² We do not use the "Name of the Issuer" entry on Form N-MFP to determine issuer because filers often list the parent rather than the issuer.

³ The parents are determined by several sources, including Moody's, Bloomberg Businessweek, and staff in the Division of Investment Management.

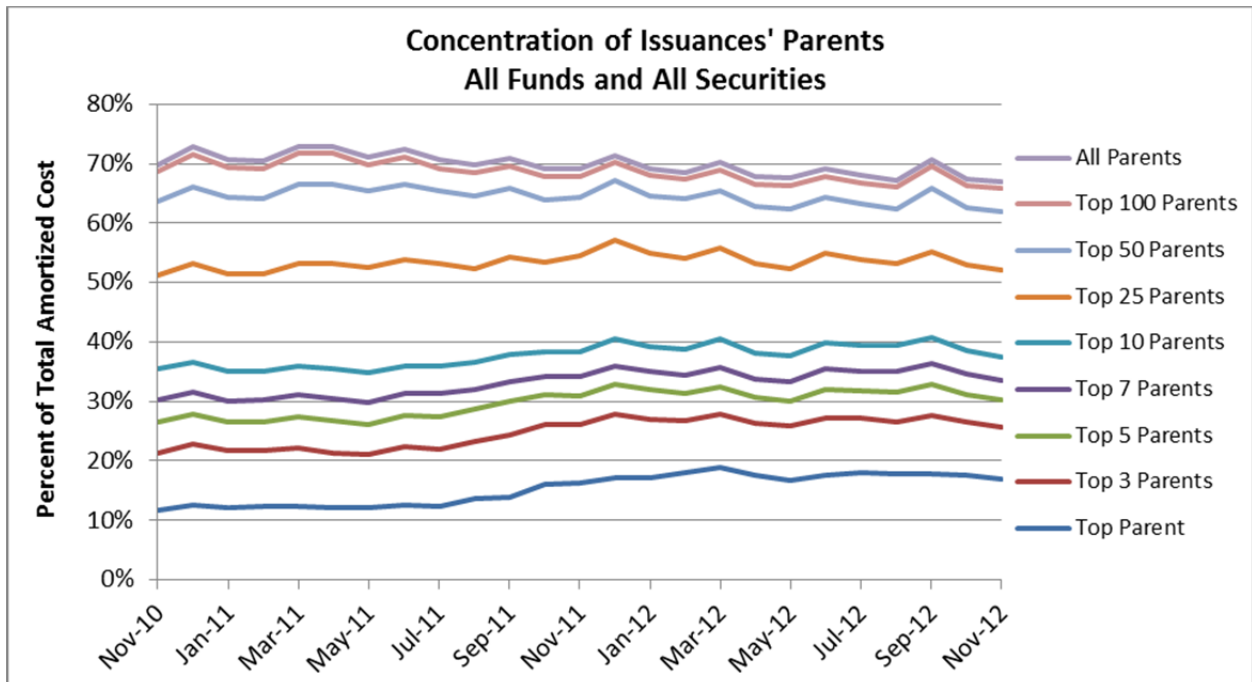
Concentration of Issuers' Parents

We begin by examining the concentration of issuers' parents in the money market fund industry. This sheds light on the relative significance of the largest parents.

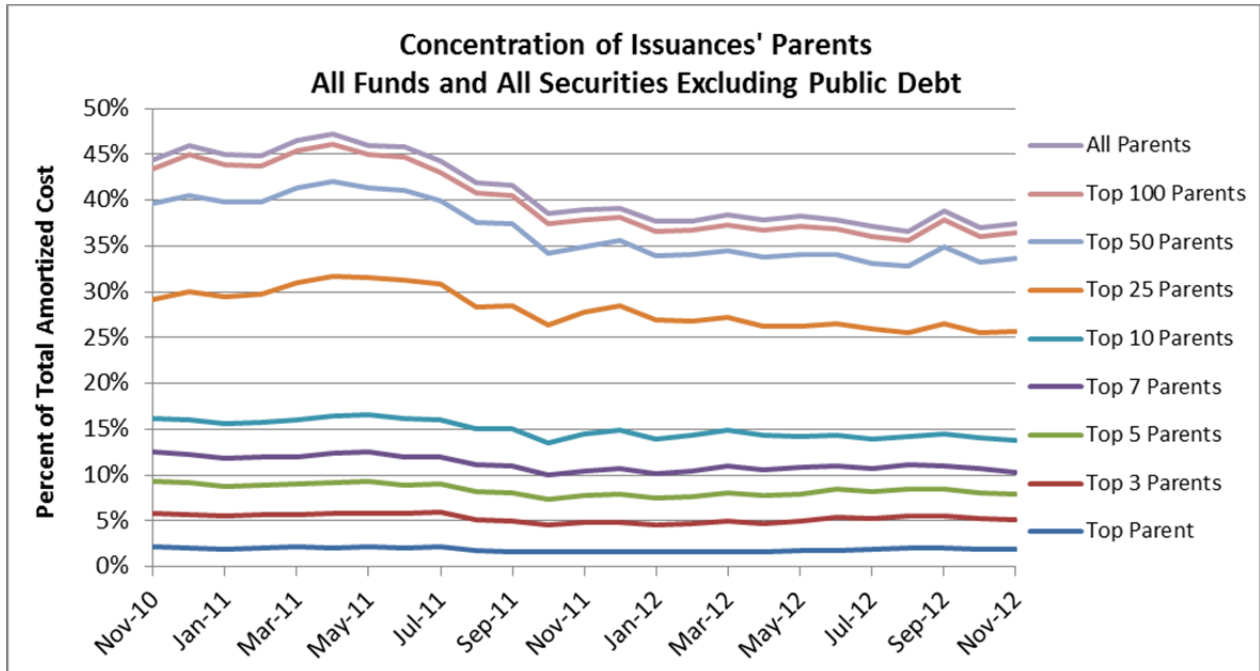
For each of the 25 months in our sample period, we aggregate the amortized-cost dollar holdings of all money market funds in each parent. In the following figures, we report the fraction of money market fund industry assets based on various groupings of the largest parents. For example, the dark purple line indicates that approximately 30% of money market fund holdings in November 2010 (the first period) were issued by the largest seven parents or their subsidiaries. This level tended to increase over the sample period, ending at slightly more than 30% in November 2012 (the last period).

The chart shows that issuers to money market funds are concentrated in a few parents. Half of the money market fund assets come from the top 25 parents while the next 25 parents only add another ten percent. The chart also shows that the amount of concentration does not change very much from month to month for all but the largest parent. For example, the top parent increases from 12% in November 2010 to 17% in November 2012 while the next two largest parents change from 10% to 9% over the same period.

The top line of the chart, *All Parents*, is approximately 70%. This shows that approximately 30% of money market fund industry assets are excluded from our analysis.



We repeat the analysis using the second set of securities, *All Securities Excluding Public Debt*. Because of the large amount of issuances by the federal government, these results reveal much less concentration of issuers' parents. For example, the top seven parents are responsible for only about 10% of money market fund industry assets in November 2012. Nevertheless, there is still considerable concentration: the top 25 parents are responsible for 25% of money market fund assets while the next 25 parents are responsible for less than 10% of money market fund assets.



Average Exposure by Parents

We next measure two types of exposures by parents, where all values are measured by amortized cost. For each parent in our database, we first calculate the average number of money market funds over our 25 month sample period that invest at least a certain amount of their assets in securities whose issuers have that parent. We then calculate, for each parent in our database, the average number of money market funds over our 25 month sample period that holds at least a certain fraction of the parent's issuance to all money market funds. We report our results in the following table for the 50 largest parents as determined by the 5% exposure level from the first calculation.

Consider the first row of the table. The first column shows that 177.20 funds, on average, invest in RBC (Royal Bank of Canada). The second set of columns reports concentration levels as a percentage of a fund's total amortized cost. The results indicate that 92.88 funds, on average, hold at least 3% of their portfolios in RBC and that 29.84 funds, on average, hold at least 5% of their portfolios in RBC⁴. The last set of columns reports concentration levels as a percentage of a parent's issuance to all funds. These results show that 94.20 funds, on average, hold at least 0.1% of RBC's total money market fund issuance and that 3.84 funds, on average, hold at least 5% of RBC's total money market fund issuance.

**The Average Number of Funds with a Certain Level of Exposure to an Issuer's Parent
All Funds and All Securities Excluding Public Debt**

Parent	N	Level of Exposure % of Fund's Total Amortized Cost					Level of Exposure % of Parent's Issuance to All Funds				
		>= 1%	>= 3%	>= 5%	>= 7%	>=10%	>= 0.01%	>= 0.1%	>= 0.5%	>=1%	>=5%
1 RBC	177.20	154.84	92.88	29.84	13.68	3.04	154.08	94.20	42.84	26.80	3.84
2 JPMORGAN CHASE	188.20	162.40	94.36	25.36	9.00	1.56	163.80	95.00	45.84	25.56	2.88
3 BARCLAYS	163.28	144.92	83.24	23.64	7.80	1.32	146.04	87.84	45.76	26.20	3.36
4 CITI	125.44	104.96	58.72	22.36	8.96	2.92	116.20	78.88	42.00	25.40	4.20
5 FIDELITY	27.04	24.52	20.40	15.84	12.72	7.44	25.44	20.88	15.96	12.88	4.32
6 SUMITOMO GROUP	104.68	89.96	43.48	13.44	3.12		96.20	67.48	36.28	21.56	4.28
7 RABOBANK	160.00	144.20	72.20	13.32	3.80	0.40	140.96	81.44	44.20	26.64	3.84
8 MITSUBISHI GROUP	124.20	112.16	66.32	13.16	1.92	0.44	112.72	73.20	40.44	25.12	4.24
9 DEUTSCHE	133.48	114.96	62.84	12.88	4.40	1.52	119.88	76.96	42.08	27.32	3.24
10 SOCIETE GENERALE	112.24	95.24	48.88	11.16	2.36	0.16	100.48	65.36	36.92	22.72	4.64
11 HSBC	114.24	87.64	31.76	8.88	3.72	0.88	107.88	75.12	38.72	25.28	3.24
12 GE	181.88	143.44	58.28	8.80	2.32	0.80	161.96	91.36	41.52	26.60	2.72
13 RBS	84.08	67.28	26.72	7.96	3.48	0.80	78.68	57.44	33.80	22.40	3.68
14 CREDIT AGRICOLE	77.64	65.64	37.92	7.80	2.40	0.24	70.04	47.48	29.92	20.04	5.16
15 BNP PARIBAS	123.08	99.08	51.52	7.20	1.00	0.48	107.68	67.64	37.24	24.16	4.64

⁴ The proposing release reports the largest average fund-level exposure at the 5%, 7%, and 10% levels as 31, 14, and 3. The corresponding values that are reported in this memo are 29.84, 13.68, and 3.04. Of these three values, only the first does not round to the value reported in the proposing release. This rounding difference is due to further refinement of the database that DERA performed after the publication of the proposing release. DERA believes that the difference between 30 and 31 is not economically significant.

16	BANK OF AMERICA	103.00	78.68	31.08	7.00	2.84	1.64	92.76	57.76	33.04	22.24	4.36
17	CREDIT SUISSE	126.52	103.28	46.36	6.96	1.40	0.28	112.84	70.32	39.32	24.36	4.80
18	WESTPAC	156.12	130.04	54.16	6.72	1.04	0.20	138.80	83.40	44.28	24.88	3.96
19	LLOYDS	82.80	67.88	31.88	6.68	1.00		78.20	55.08	33.92	24.60	4.92
20	ING	90.64	71.92	32.24	6.48	1.12	0.04	84.48	59.72	34.36	24.00	5.24
21	GUGGENHEIM CAPITAL	20.48	16.84	10.96	4.92	2.76	0.88	20.48	19.36	16.12	14.68	6.08
22	MADISON DEARBORN PARTNERS	12.80	8.24	6.40	4.52	2.32	0.60	12.80	12.80	11.20	9.16	3.92
23	BLACKROCK	32.64	22.52	13.52	4.48	1.40	0.84	28.80	24.00	17.48	13.36	5.04
24	STATE CALIFORNIA	21.08	15.32	9.52	4.48	2.40	0.36	21.08	19.88	13.64	11.16	4.96
25	BANK OF NOVA SCOTIA	179.92	162.16	65.96	4.32	0.68		157.76	90.00	43.32	24.56	3.60
26	OVERSEAS PRIVATE INVESTMENT CORP	13.04	11.12	6.80	4.32	4.04	2.24	13.00	13.00	12.84	12.24	7.08
27	TOYOTA	118.44	91.16	31.76	3.76	0.16		114.00	80.64	39.08	25.36	3.52
28	GOLDMAN SACHS	57.16	31.20	10.04	3.72	2.68	1.52	54.00	44.16	26.24	18.00	6.04
29	FEDERATED	9.48	7.88	6.72	3.28	2.36	2.12	8.60	8.36	7.44	5.84	2.64
30	BANK OF MONTREAL	135.12	109.56	33.60	3.08	0.36	0.20	124.56	89.08	40.68	26.20	4.08
31	UBS	82.84	68.04	30.00	2.88	1.28	0.68	78.12	52.52	32.20	22.16	4.80
32	MIZUHO	82.88	62.12	29.52	2.72	0.16		77.52	53.96	32.60	21.48	5.04
33	NATIXIS	49.36	42.68	16.44	2.56	0.48		46.68	35.44	25.32	19.56	5.64
34	NATIONAL AUSTRALIA BANK BNZ	138.80	112.96	42.60	2.52			122.68	78.92	41.36	22.80	4.56
35	WELLS FARGO	95.28	55.16	15.24	2.28	0.72	0.24	87.96	60.08	34.00	25.24	5.00
36	MORGAN STANLEY	31.36	18.84	6.88	2.20	1.32	0.72	30.84	26.56	17.24	12.52	4.56
37	PRUDENTIAL	20.64	11.92	4.20	2.12	1.08	0.12	20.64	19.84	15.40	11.12	4.44
38	OTHER	2.08	2.08	2.08	2.08	2.08	2.08	2.00	1.92	1.92	1.92	1.92
39	COCA COLA	73.32	58.20	20.60	2.00	0.16		72.28	56.68	27.80	17.12	4.60
40	STATE STREET	77.40	50.00	15.80	1.92	1.08	0.24	69.80	53.36	27.56	19.28	4.84
41	BANK OF NEW YORK - MELLON	25.12	12.08	5.72	1.88	1.24	1.08	22.92	20.04	15.60	12.04	5.12
42	CATERPILLAR	21.56	14.52	6.12	1.76	0.56		21.56	21.36	19.20	16.88	6.76
43	NUVEEN	14.28	9.60	6.84	1.76	0.40		14.28	13.68	12.36	10.44	5.64
44	FORD	46.92	32.88	16.80	1.72	0.08		45.12	37.16	25.00	17.64	4.96
45	STATE NEW YORK	9.16	6.40	2.64	1.52	1.00		9.16	9.16	8.88	8.32	4.48
46	TENNESSEE VALLEY AUTHORITY	9.92	5.96	3.12	1.48	0.68	0.36	9.72	9.32	8.36	7.28	4.08
47	PORT AUTHORITY OF NY & NJ	7.16	3.88	2.60	1.36	0.92	0.08	7.16	7.16	7.16	6.64	4.16
48	NORDEA	118.24	96.20	33.36	1.32	0.04		111.40	73.36	41.40	27.20	3.44
49	NESTLE	51.00	39.52	14.56	1.24			50.12	36.76	17.68	12.28	4.32
50	HONDA MOTORS	54.56	31.40	11.56	1.16	0.04		53.60	46.72	28.32	16.80	4.36

Investment Types of Total Issuances by the Top Ten Parents

Form N-MFP requires filers to report portfolio holdings information that identifies the investment type of each security. We rely on these classifications to measure the type of securities issued by the ten largest parents to the money market fund industry. Using November data from 2010, 2011, and 2012, we calculate each parent's dollar issuance to the money market fund industry and how those dollars are allocated across investment types.

Consider the third row of the table, RBC in November 2012. This parent had issued short-term debt securities to money market funds that amounted to \$37.7 billion. These securities were mostly comprised of ABCP (20.7%), CDs (46.1%), and Other Notes (23.0%).

The results indicate that the investment type varies across parents. For example, Credit Suisse issued 36.6% CDs and 49.0% Other Repos in November 2012 while the Mitsubishi Group issued 85.4% CDs and 0.2% Other Repos in the same month. The table also shows that the investment type varies, for a given parent, through time. For example, Barclays reduced its CDs issuances from 52.6% in 2010 to 28.8% in 2011.

Investment Types of Total Issuances by the Top Ten Parents All Funds and All Securities Excluding Public Debt

Parent	Date	Total Amortized Cost (\$Billion)	Investment Type										TOTAL
			ABCP	CD	FINANCE CO CP	GOVT AGENCY DEBT	INVEST CO	OTHER CP	OTHER INSTR	OTHER NOTE	OTHER REPO	SIV NOTE	
RBC	10-Nov	56.4	7.8%	55.2%	0.5%		0.6%	0.5%	11.6%	12.7%	11.1%		100%
RBC	11-Nov	47.6	17.8%	49.5%	1.8%		0.5%		5.5%	17.9%	7.0%		100%
RBC	12-Nov	37.7	20.7%	46.1%	0.2%		0.4%		3.1%	23.0%	6.5%		100%
RABOBANK	10-Nov	52.3	22.4%	65.5%	4.5%			0.2%	0.1%	7.3%			100%
RABOBANK	11-Nov	42.7	17.4%	73.6%	5.8%			0.0%	0.0%	3.2%			100%
RABOBANK	12-Nov	35.5	30.4%	55.9%	9.7%			0.0%		3.9%			100%
MITSUBISHI GROUP	10-Nov	40.4	3.5%	93.4%	0.0%	0.0%		0.0%		3.0%			100%
MITSUBISHI GROUP	11-Nov	41.6	7.8%	82.2%	1.1%	0.0%	0.0%	0.3%	7.6%	1.0%			100%
MITSUBISHI GROUP	12-Nov	52.3	7.5%	85.4%	2.8%			0.0%		4.1%	0.2%		100%
BARCLAYS	10-Nov	44.5	11.0%	52.6%	3.3%			0.4%	0.0%	2.6%	30.1%		100%
BARCLAYS	11-Nov	49.8	9.3%	28.8%	19.6%			0.5%	11.3%	4.8%	25.7%		100%
BARCLAYS	12-Nov	25.2	11.6%	44.0%	24.9%					1.6%	17.9%		100%
JPMORGAN CHASE	10-Nov	33.3	27.1%	0.4%	8.3%	1.3%	0.0%		0.1%	19.9%	42.9%		100%
JPMORGAN	11-Nov	39.5	22.7%	4.8%	6.4%	1.1%	0.6%	0.3%	5.2%	25.8%	33.1%	0.0%	100%

CHASE JPMORGAN CHASE	12-Nov	44.1	21.4%	8.6%	20.3%	0.1%	0.6%	0.1%	0.0%	16.1%	32.9%	100%
BANK OF NOVA SCOTIA	10-Nov	24.7	5.2%	85.4%	7.2%			0.7%		1.5%		100%
BANK OF NOVA SCOTIA	11-Nov	46.8	3.4%	66.8%	15.0%			0.5%	11.3%	2.9%		100%
BANK OF NOVA SCOTIA	12-Nov	39.5	5.3%	72.7%	5.5%			0.3%	8.8%	7.3%		100%
NATIONAL AUSTRALIA BANK	10-Nov	22.6		72.0%	20.3%			3.1%		4.6%		100%
NATIONAL AUSTRALIA BANK	11-Nov	38.8		75.8%	14.3%			0.1%	3.3%	6.5%		100%
NATIONAL AUSTRALIA BANK	12-Nov	40.1		75.9%	16.0%			2.5%	2.2%	3.4%		100%
WESTPAC	10-Nov	35.9	0.6%	22.6%	47.4%			1.0%		28.5%		100%
WESTPAC	11-Nov	39.4	0.5%	25.9%	48.4%			0.4%		24.7%		100%
WESTPAC	12-Nov	30.2	1.8%	28.8%	56.1%			5.7%		7.6%		100%
DEUTSCHE	10-Nov	55.6	15.9%	30.6%	8.3%	0.0%	0.4%	0.4%	3.6%	0.9%	39.8%	100%
DEUTSCHE	11-Nov	34.7	18.6%	37.7%	20.9%		0.0%	0.1%	14.3%	3.0%	5.4%	100%
DEUTSCHE	12-Nov	29.4	19.6%	34.3%	10.6%		0.6%	0.2%	3.6%	7.5%	23.7%	100%
CREDIT SUISSE	10-Nov	26.5	8.0%	31.0%	8.8%				6.7%	0.3%	45.1%	100%
CREDIT SUISSE	11-Nov	38.8	5.3%	43.5%	22.0%				0.0%	1.3%	27.9%	100%
CREDIT SUISSE	12-Nov	33.6	7.2%	36.6%	4.4%					2.8%	49.0%	100%