
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 Guarantors

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 guarantors. In our companion memo, we present our analysis of the exposure money market funds have to the parents of issuers.

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 monthly portfolio information for each money market fund. We focus on three types of reported information for each security. First, funds report whether or not the security has a Demand Feature, and, if so, the identity of the Demand Feature issuer (item 37). By hand, we link the Demand Feature issuer to its ultimate parent. Second, funds report whether or not the security has a Guarantee, and, if so, the identity of the Guarantee issuer (item 38). By hand, we link the Guarantee issuer to its ultimate parent.¹ Our third type of reported information is the type of each security (item 31), which has 16 possible values.

Using this information, we create two subsets of the securities. The first subset, *All Securities*, consists of all Form N-MFP reported securities except for securities identified as Treasury Repurchase Agreement or Government Repurchase Agreement. 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).

¹ The relationship between securities, security issuers, Guarantees, Guarantee issuers, Demand Features, and Demand Feature issuers is complex. We make several simplifying assumptions throughout this memo. First, we do not double count exposures. For example, we count as one exposure a security that has simultaneous exposure to the same parent through a Guarantee and through a Demand Feature. Second, we look through the security issuer for Asset Backed Commercial Paper (ABCP) in order to be consistent with the proposed rule. For example, if a specific security has the same ultimate parent for the security issuer and the Guarantee issuer, we ignore the issuer exposure but use the Guarantor exposure. Third, we do not look through the security issuer for non-ABCP securities that have Guarantees or Demand Features. For example, if a specific security has the same ultimate parent for the security issuer and the Guarantee issuer, we use the issuer exposure but ignore the Guarantor exposure.

During our sample period, there are 1.74 million security-fund-month observations. Approximately 41% of these have a Demand Feature, 30% have a Guarantee, and 22% have both. Therefore, 52% have neither. All reported dollar calculations are stated in terms of amortized cost, and all charts are based on a monthly average of 641 funds.

To simplify the discussion in the remainder of this memo, we use *guarantors* to refer both to issuers of Guarantees and to issuers of Demand Features. Similarly, we use *guarantees* to refer both to Guarantees and to Demand Features.

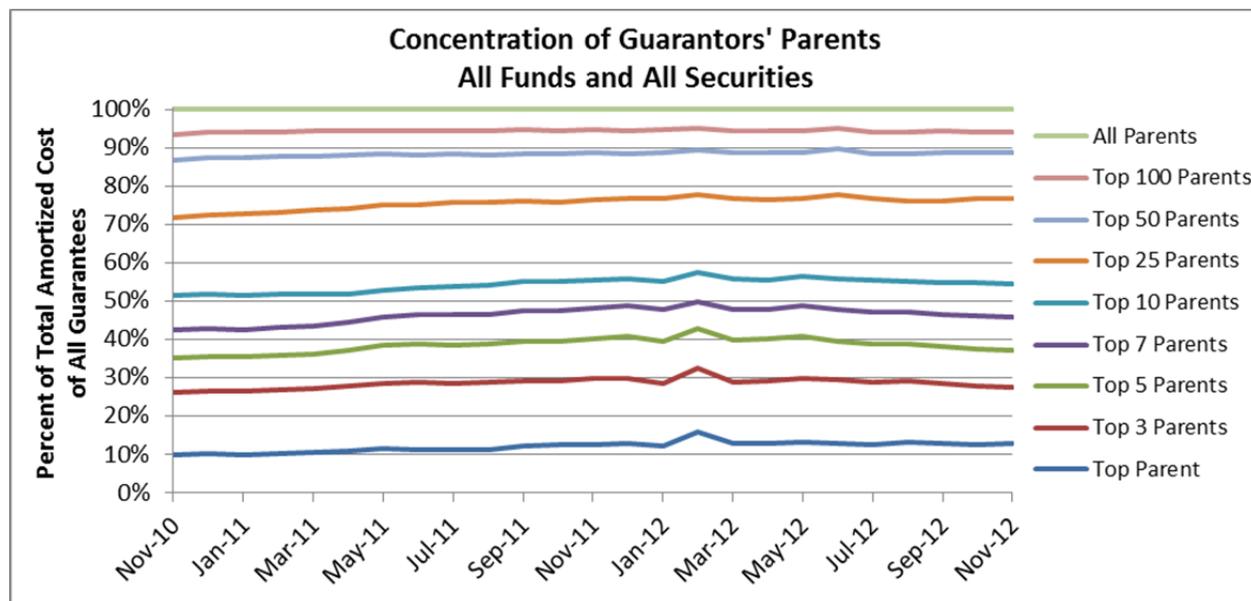
Concentration of Guarantors' Parents

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

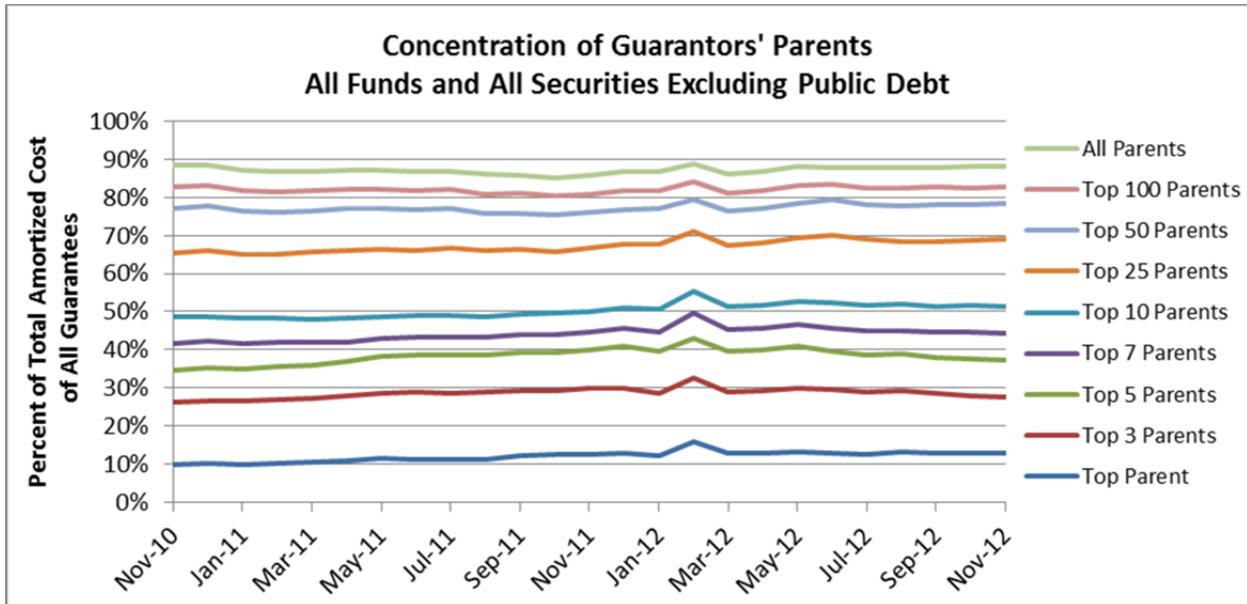
For each of the 25 months in our sample period, we aggregate the amortized-cost dollar holdings of all money market funds in each parent. In the following figures, we report the fraction of money market fund industry assets based on various groupings of the largest parents. For example, the dark green line indicates that the largest five parents were associated with, either directly or through an affiliate, approximately 35% of money market fund holdings in November 2010 (the first period). This level increased to over 40% in the middle of the sample period, and it fell to just under 40% in November 2012 (the last period).

The chart shows that guarantees are concentrated. For example, the top ten parents are associated with more than half of the guarantees while the next 40 parents add approximately 35%. The chart also shows that the amount of concentration does not change very much from month to month.

The top line of the chart, *All Parents*, is 100%. This emphasizes that we identified a parent for each security that reported a guarantee in the first set of securities, *All Securities*.



We repeat the analysis using the second set of securities, *All Securities Excluding Public Debt*. The results show that the level of concentration is very similar to the previous case. For example, over half of the guarantees are associated with the top 10 parents. However, the top line of the chart, *All Parents*, is just under 90%. This shows that just over 10% of the dollar value of guarantees are associated with securities that are issued by the Treasury or another government entity such as Fannie Mae or one of the other issuers listed on page 1 of this memo.



Average Exposure by Parents

We next measure two types of exposures by parents. For each parent of guarantors in our database, we first calculate, by guarantors' parents, the average number of money market funds over our 25 month sample period that invest at least a certain fraction of their assets in securities that are guaranteed by that parent. We then calculate, for each parent of guarantors in our database, the average number of money market funds over our 25 month sample period that holds at least a certain fraction of that parent's guarantees to all money market funds. We report our results in the following table for the 50 largest parents as determined by the 10% exposure level from the first calculation.

Consider the first row of the table. The first column shows that 297.76 funds, on average, invest in securities whose guarantors have JPMorgan Chase as the ultimate parent. The second set of columns reports concentration levels as a percentage of a fund's total amortized cost. The results indicate that 174.72 funds, on average, hold at least 5% of their portfolios in securities whose guarantors have JPMorgan Chase as the ultimate parent, and that this number falls to 66.88 funds for the 10% threshold. The last set of columns reports concentration levels as a percentage of a parent's guarantees to all money market funds. These results show that 132.76 funds, on average, hold at least 0.1% of all the guarantees that are backed by JPMorgan Chase and that 26.80 funds, on average, hold at least 1% of all the guarantees that are backed by JPMorgan Chase.

**The Average Number of Funds with a Certain Level of Exposure to a Guarantor'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 Guarantees to All Funds					
		>= 1%	>= 3%	>= 5%	>=10%	>=15%	>= 0.01%	>= 0.1%	>= 0.5%	>=1%	>=5%	
		1	JPMORGAN CHASE	297.76	266.00	222.24	174.72	66.88	12.76	261.36	132.76	54.32
2	BANK OF AMERICA	246.84	215.40	170.84	134.28	47.88	8.80	224.92	112.00	46.24	26.00	2.28
3	WELLS FARGO	269.60	223.20	176.24	142.68	35.20	10.96	252.96	130.48	48.68	26.92	2.40
4	CITI	191.40	158.32	126.16	96.40	22.88	7.04	178.44	109.24	49.32	26.04	3.32
5	ASSURED GUARANTY	96.72	77.64	59.92	42.16	10.04	2.28	94.68	75.16	38.32	21.64	2.96
6	STATE CALIFORNIA	67.16	43.88	24.12	15.92	8.20	5.32	66.72	56.40	35.68	25.00	5.60
7	MANUFACTURERS & TRADERS	59.20	43.92	27.88	21.40	7.08	1.12	59.20	54.76	40.64	29.40	4.44
8	DEUTSCHE	97.00	65.52	41.16	27.24	5.96	1.28	93.28	71.80	33.24	21.16	3.44
9	MS	25.28	21.44	13.12	10.96	5.56	1.60	25.28	21.16	14.92	11.08	3.60
10	TORONTO DOMINION	154.08	93.32	63.24	39.08	5.04	0.16	151.36	117.24	50.88	25.76	1.44
11	FIFTH THIRD BANK	21.68	17.04	12.56	10.72	4.80	1.48	21.68	19.68	15.72	13.72	5.16
12	GOLDMAN SACHS	31.08	26.24	17.12	12.08	4.32	1.44	31.04	27.88	18.72	12.60	5.48
13	DEXIA	39.04	34.20	27.16	19.76	4.04	0.64	37.72	26.16	14.52	10.28	2.16
14	NEW YORK CITY	23.24	16.00	10.44	7.12	3.80	2.60	23.24	21.80	18.36	13.76	4.60
15	US BANCORP	218.32	165.16	115.24	73.96	3.72	0.28	202.96	117.36	43.00	23.40	2.20
16	RBS	73.36	42.48	17.76	11.72	3.24	1.16	72.64	61.80	36.88	23.44	6.04
17	RY	15.08	12.56	10.12	6.56	3.24	1.36	15.08	14.72	12.44	9.32	3.12

18	STATE STREET	141.48	95.32	51.84	28.72	3.16	0.20	135.04	97.76	45.64	26.92	3.12
19	BB&T CORP.	125.88	78.16	43.92	26.36	3.00	0.16	123.48	86.60	40.72	21.08	3.68
20	COMERICA BANK	65.88	38.56	22.60	11.72	2.24	0.12	65.88	63.28	42.20	28.28	3.76
21	BARCLAYS	131.76	85.64	40.44	21.36	2.16	0.24	127.64	94.36	43.52	26.12	4.04
22	HELABA	88.36	64.88	38.92	22.32	1.88	0.04	86.56	66.60	34.32	21.96	3.60
23	RBC	144.56	106.72	57.20	30.48	1.72		136.20	94.20	41.56	28.04	3.04
24	PNC FINANCIAL SERVICES	142.52	95.92	49.48	28.92	1.72	0.16	138.36	99.76	51.56	28.88	1.68
25	GOVT OTHER	7.68	5.00	3.20	2.60	1.60	0.04	7.64	7.24	6.16	5.08	3.68
26	STATE NEW YORK	22.24	15.12	7.16	4.76	1.56	1.36	22.24	20.12	18.32	14.20	6.64
27	BCLE	21.80	16.40	9.36	5.80	1.52	0.28	21.80	20.16	15.04	11.60	4.28
28	KEYBANK	24.08	16.20	11.20	5.12	1.48	0.08	24.04	22.76	18.48	13.80	4.84
29	BNP PARIBAS	82.44	46.68	20.52	8.20	1.32		81.28	69.20	36.84	22.56	3.36
30	MITSUBISHI GROUP	100.76	63.60	27.32	12.96	1.28		99.96	85.52	48.44	28.44	3.68
31	STATE MICHIGAN	15.84	6.32	2.36	1.44	1.12	0.52	15.84	15.12	13.64	11.40	5.12
32	STATE MARYLAND	7.12	3.12	2.24	2.16	1.04	1.00	7.12	7.12	7.12	6.96	5.88
33	VALLEY NATIONAL BANK	5.16	3.48	1.56	1.04	1.04		5.16	5.16	5.12	5.12	4.96
34	BERKSHIRE HATHAWAY	66.60	40.16	12.44	3.80	0.96	0.24	66.00	60.12	34.08	24.36	4.20
35	NUCOR CORP	24.72	9.08	2.52	1.96	0.92	0.64	24.68	23.68	19.96	14.68	6.56
36	PRE-REFUNDED ESCROWED	2.48	1.72	1.20	1.12	0.92	0.48	2.48	2.48	2.48	2.48	2.48
37	LOS ANGELES CA	9.00	5.52	2.64	1.68	0.88	0.36	9.00	8.96	8.32	7.52	4.64
38	LANDESBANK BADEN-WUERTTEMBERG	38.60	25.36	10.72	4.72	0.84	0.04	38.48	33.56	23.48	18.16	5.84
39	CA STATE COMMUNITIES DEVELP AUTHORITY	9.84	4.56	2.36	1.48	0.80	0.20	9.84	9.84	9.36	8.76	4.76
40	JEFFERIES GROUP	9.16	6.04	3.48	1.68	0.80		9.16	9.16	8.20	7.76	5.16
41	<BLANK>	1.16	1.12	1.00	0.88	0.76	0.76	1.16	1.16	0.92	0.76	0.24
42	MORGAN STANLEY	66.24	46.32	23.60	10.60	0.72	0.04	66.16	56.52	36.48	26.36	4.56
43	HSBC	52.16	25.28	16.48	9.44	0.72		52.12	49.44	34.32	24.28	5.20
44	COMPASS BANK	10.76	5.44	2.64	2.40	0.72	0.40	10.76	10.76	10.56	9.76	5.04
45	KBC	37.80	23.60	11.76	4.96	0.64	0.04	37.64	34.48	22.60	16.60	5.04
46	METROPOLITAN TRANSPORTATION AUTH	9.24	4.48	3.08	2.28	0.64	0.12	9.24	9.16	8.44	8.04	5.56
47	NO GUARANTOR DEFINED	1.76	1.24	0.72	0.64	0.64	0.52	1.76	1.72	1.40	1.24	0.84
48	BANK OF NOVA SCOTIA	126.68	76.16	34.08	14.16	0.52		125.28	103.20	50.48	31.20	1.76
49	WEST LB	16.84	11.28	4.60	2.92	0.52	0.04	16.84	16.76	14.52	12.24	4.92
50	MRK	5.28	3.92	2.44	1.04	0.52	0.04	5.28	5.28	4.76	3.80	3.28

Simultaneous Parent Exposure through Issuers and Guarantors

The following table reports the *simultaneous* parent exposure through issuers (the topic of the companion memo) and guarantors (the topic of this memo). There are three primary sets of columns, each of which contains six secondary columns. The three primary columns respectively identify issuer's parent exposures that are positive, at least 1%, and at least 5%. The six secondary columns respectively identify guarantor's parent exposures that are positive, at least 1%, at least 3%, at least 5%, at least 7%, and at least 10%.

Consider the first row of the table. The first primary column and first secondary column shows that 76.52 funds, on average, have simultaneous exposure through one or more securities to JPMorgan Chase as a parent of an issuer and as a parent of a guarantor. The adjacent column shows that 55.84 funds, on average, have at least some issuer exposure and at least 1% guarantor exposure to JPMorgan Chase. The third primary set of columns and the fifth secondary column shows that 0.08 funds, on average, have at least 5% issuer parent exposure and at least 7% guarantor parent exposure to JPMorgan Chase.

**The Average Number of Funds with a Certain Level of Simultaneous Parent Exposure through Issuers and Guarantors
All Funds and All Securities Excluding Public Debt**

Parent	Issuer's Parent Exposure > 0%						Issuer's Parent Exposure >= 1%						Issuer's Parent Exposure >= 5%					
	Level of Guarantor's Parent Exposure % of Fund's Total Amortized Cost						Level of Guarantor's Parent Exposure % of Fund's Total Amortized Cost						Level of Guarantor's Parent Exposure % of Fund's Total Amortized Cost					
	> 0%	>= 1%	>= 3%	>= 5%	>= 7%	>= 10%	> 0%	>= 1%	>= 3%	>= 5%	>= 7%	>= 10%	> 0%	>= 1%	>= 3%	>= 5%	>= 7%	>= 10%
1 JPMORGAN CHASE	76.52	55.84	29.68	9.68	3.08	0.44	67.32	47.56	25.64	8.36	2.20	0.40	11.32	6.04	3.40	0.92	0.08	
2 WELLS FARGO	36.16	17.24	5.40	3.64	2.88	1.84	20.00	10.68	2.64	1.48	1.24	0.92	0.20	0.08				
3 RBC	29.60	7.68	1.04	0.12			24.24	6.12	0.48	0.08			2.04	0.24	0.08			
4 BANK OF AMERICA	28.28	16.00	7.40	3.92	1.56	0.12	21.20	11.64	5.00	2.36	1.04	0.08	0.80	0.24	0.12	0.04	0.04	0.04
5 TORONTO DOMINION	25.04	2.16	0.08				17.84	1.96	0.08				0.08					
6 CITI	24.44	6.88	0.96	0.44	0.16		21.20	5.88	0.76	0.40	0.16		4.00	1.72				
7 BARCLAYS	24.08	7.96	1.60				21.88	6.76	1.52				2.72	0.48	0.12			
8 BANK OF MONTREAL	18.92	6.16	2.44	0.52	0.08		13.64	4.12	1.52	0.04			0.08	0.04	0.04			
9 BANK OF NOVA SCOTIA	18.20	3.20	0.60				14.76	2.56	0.40									
10 RBS	16.24	5.44	0.12	0.04			13.60	4.52	0.12	0.04			0.76	0.24	0.04			
11 PNC FINANCIAL SERVICES	15.24	6.88	2.16	1.40	0.52	0.04	6.36	3.04	0.32									
12 MITSUBISHI GROUP	14.40	3.04	0.32				11.92	1.88	0.20				1.64	0.08				
13 STATE CALIFORNIA	13.56	10.68	7.00	5.20	4.24	3.40	10.88	8.88	6.56	4.84	3.88	3.08	4.36	4.16	3.24	2.72	2.48	1.96
14 DEUTSCHE	12.88	3.00	0.04				12.24	2.96	0.04				1.80	0.08				
15 STATE STREET	12.72	5.00	2.44	0.56	0.48		5.48	2.12					0.16	0.12				
16 LLOYDS	12.56	3.68	1.00	0.28	0.04		8.32	1.76	0.40	0.16			0.76	0.04	0.04	0.04		
17 BNP PARIBAS	11.12	2.44	0.24	0.04			9.12	2.16	0.24	0.04			0.52	0.08				
18 GE	9.96	0.44					6.56	0.40					0.04					
19 RABOBANK	9.04	2.08	0.28	0.12	0.04		8.72	2.00	0.24	0.08			1.72	0.04				
20 NATIONAL AUSTRALIA BANK BNZ	8.16	0.04					5.96	0.04					0.04					
21 SUMITOMO GROUP	7.72	1.00	0.20				5.36	0.88	0.20				0.68	0.32	0.08			
22 SOCIETE GENERALE	7.32	1.72	0.04				5.44	1.20					0.16					
23 US BANCORP	7.00	3.80	1.44	0.16	0.12		3.88	1.84	0.88				0.04	0.04	0.04			
24 STATE TEXAS	6.80	4.80	1.48	0.76	0.04		2.12	1.56	0.72	0.20								

Dollar Value of Parent Exposure

The following two tables report the dollar value (in \$billions) of parent exposure for *All Securities Excluding Public Debt*. The first table is sorted based on total exposure while the second table is sorted based on guarantee exposure. In both cases, each security in the second set of securities, *All Securities Excluding Public Debt*, is assigned to exactly one of the following three groups: guarantees, government repos, and other securities.

The results show that four parents have total exposures in excess of \$100 billion and that 43 parents have total exposures in excess of \$10 billion. The second table shows that six funds have guarantee exposure of at least \$10 billion and that 45 funds have guarantee exposure of at least \$1 billion.

Dollar Value of Parent Exposure
Sorted by Total Exposure
All Funds and All Securities Excluding Public Debt

Parent	Guarantees	Govt Repos	Other Issuances	Total	
1	BARCLAYS	6.55	65.99	41.42	113.96
2	BANK OF AMERICA	34.54	50.98	23.18	108.69
3	DEUTSCHE	8.07	63.38	36.27	107.72
4	JPMORGAN CHASE	44.31	14.60	41.37	100.27
5	RBC	10.80	11.95	48.69	71.44
6	BNP PARIBAS	2.69	36.12	31.03	69.84
7	CITI	19.91	21.79	27.92	69.62
8	CREDIT SUISSE	0.87	28.09	35.11	64.08
9	SOCIETE GENERALE	1.81	22.12	26.39	50.33
10	RBS	3.24	26.29	20.62	50.15
11	BANK OF NOVA SCOTIA	3.92	5.96	40.11	49.99
12	MITSUBISHI GROUP	3.53	1.01	43.38	47.92
13	WELLS FARGO	27.36	9.23	8.47	45.06
14	RABOBANK	0.85		43.88	44.73
15	CREDIT AGRICOLE	0.87	19.60	23.60	44.08
16	UBS	0.33	22.83	20.21	43.37
17	GOLDMAN SACHS	1.61	36.31	4.04	41.96
18	NATIONAL AUSTRALIA BANK BNZ	0.28		36.99	37.28
19	WESTPAC	0.07		36.94	37.01
20	HSBC	0.85	17.02	18.76	36.63
21	SUMITOMO GROUP	1.53		34.94	36.47
22	ING	0.02	9.54	23.24	32.80
23	TORONTO DOMINION	4.88	4.79	21.79	31.47
24	BANK OF MONTREAL	2.94	3.51	23.45	29.90
25	MIZUHO	1.22	6.39	21.43	29.05
26	SVENSKA HANDELSBANKEN	0.20		28.42	28.62
27	LLOYDS	5.29		22.53	27.82

Dollar Value of Parent Exposure
Sorted by Guarantee Exposure
All Funds and All Securities Excluding Public Debt

Parent	Guarantees	Govt Repos	Other Issuances	Total	
1	JPMORGAN CHASE	44.31	14.60	41.37	100.27
2	BANK OF AMERICA	34.54	50.98	23.18	108.69
3	WELLS FARGO	27.36	9.23	8.47	45.06
4	CITI	19.91	21.79	27.92	69.62
5	US BANCORP	16.46	0.02	2.05	18.53
6	RBC	10.80	11.95	48.69	71.44
7	DEUTSCHE	8.07	63.38	36.27	107.72
8	ASSURED GUARANTY	7.74			7.74
9	PNC FINANCIAL SERVICES	6.84	0.06	3.47	10.36
10	STATE STREET	6.82	0.40	7.42	14.64
11	BB&T CORP.	6.56		4.23	10.79
12	BARCLAYS	6.55	65.99	41.42	113.96
13	HELABA	6.03		1.95	7.98
14	LLOYDS	5.29		22.53	27.82
15	TORONTO DOMINION	4.88	4.79	21.79	31.47
16	MORGAN STANLEY	4.12	11.07	2.61	17.81
17	BANK OF NOVA SCOTIA	3.92	5.96	40.11	49.99
18	DEXIA	3.78		2.46	6.24
19	MITSUBISHI GROUP	3.53	1.01	43.38	47.92
20	STATE CALIFORNIA	3.44		1.29	4.73
21	BANK OF NEW YORK - MELLON	3.24	1.36	0.81	5.42
22	RBS	3.24	26.29	20.62	50.15
23	STATE TEXAS	3.03		0.15	3.18
24	GERMANY GOVT	3.02		8.75	11.77
25	BANK OF MONTREAL	2.94	3.51	23.45	29.90
26	BERKSHIRE HATHAWAY	2.91		0.53	3.44
27	NORTHERN TRUST	2.79		2.02	4.81

28	NORDEA	0.01		25.24	25.25	28	BNP PARIBAS	2.69	36.12	31.03	69.84
29	COMMONWEALTH BANK OF AUSTRALIA			25.08	25.08	29	MS	2.52			2.52
30	GE	0.30		22.55	22.85	30	<BLANK>	2.32			2.32
31	DNB NOR	0.06		21.19	21.24	31	NORTH RHRINE WESTPHALIA GOVT	2.22		2.43	4.64
32	US BANCORP	16.46	0.02	2.05	18.53	32	LANDESBANK BADEN-WUERTTEMBERG	1.99		0.61	2.60
33	MORGAN STANLEY	4.12	11.07	2.61	17.81	33	MANUFACTURERS & TRADERS	1.84		0.08	1.92
34	STRAIGHT A FUNDING US GOVT			17.48	17.48	34	SOCIETE GENERALE	1.81	22.12	26.39	50.33
35	NATIXIS	0.12	1.28	15.45	16.85	35	CHEVRON	1.64		0.59	2.23
36	CANADIAN IMPERIAL BANCORP	0.08	0.18	15.55	15.81	36	BAVARIAN GERMANY GOVT	1.63		0.09	1.73
37	AUSTRALIA NEW ZEALAND	0.09		14.68	14.76	37	GOLDMAN SACHS	1.61	36.31	4.04	41.96
38	STATE STREET	6.82	0.40	7.42	14.64	38	SUMITOMO GROUP	1.53		34.94	36.47
39	ENSKILDA BANK			14.05	14.05	39	KBC	1.49		4.12	5.61
40	GERMANY GOVT	3.02		8.75	11.77	40	FIFTH THIRD BANK	1.48		0.01	1.49
41	NETHERLANDS GOVT	0.13	6.78	4.22	11.13	41	NEW YORK CITY	1.41		0.23	1.63
42	BB&T CORP.	6.56		4.23	10.79	42	SOUTHERN COMPANY	1.35		0.05	1.40
43	PNC FINANCIAL SERVICES	6.84	0.06	3.47	10.36	43	MIZUHO	1.22	6.39	21.43	29.05
44	TOYOTA	0.01		9.79	9.80	44	EXXONMOBIL	1.22		0.31	1.52
45	FRANCE GOVT	0.06		9.69	9.75	45	COMERICA BANK	1.08		0.00	1.08
46	COMMERZBANK	0.02	2.39	6.76	9.16	46	BCLE	0.95			0.95
47	HELABA	6.03		1.95	7.98	47	CREDIT AGRICOLE	0.87	19.60	23.60	44.08
48	ASSURED GUARANTY	7.74			7.74	48	CREDIT SUISSE	0.87	28.09	35.11	64.08
49	SWEDBANK			6.99	6.99	49	RABOBANK	0.85		43.88	44.73
50	NRW			6.96	6.96	50	HSBC	0.85	17.02	18.76	36.63
51	DANSKE	0.00		6.78	6.78	51	NUCOR CORP	0.84			0.84
52	NORINCHUKIN			6.45	6.45	52	ROYAL DUTCH SHELL-SAUDI REFINING	0.78		0.05	0.84
53	DEXIA	3.78		2.46	6.24	53	STATE NEW YORK	0.76		0.18	0.94
54	NATIONAL BANK OF CANADA	0.03		6.02	6.05	54	KEYBANK NATIONAL ASSOCIATION	0.73		0.00	0.73
55	FIDELITY			6.03	6.03	55	BANCO SANTANDER	0.73		4.72	5.45
56	CREDIT MUTUEL	0.04		5.90	5.94	56	KAISER PERMANENTE	0.67			0.67
57	METLIFE	0.34		5.28	5.62	57	SUN TRUST	0.65		0.03	0.68
58	KBC	1.49		4.12	5.61	58	AIR PRODUCTS & CHEMICALS	0.56		0.04	0.60
59	BANCO SANTANDER	0.73		4.72	5.45	59	UNIVERSITY OF TEXAS SYSTEM	0.55		0.15	0.70
60	BANK OF NEW YORK - MELLON	3.24	1.36	0.81	5.42	60	NEXTERA ENERGY	0.53		0.07	0.60
61	NORTHERN TRUST	2.79		2.02	4.81	61	STATE MICHIGAN	0.52		0.05	0.57
62	STATE CALIFORNIA	3.44		1.29	4.73	62	ASCENSION HEALTH	0.50		0.02	0.52
63	NORTH RHRINE WESTPHALIA GOV'T	2.22		2.43	4.64	63	PUT	0.45			0.45
64	NESTLE	0.00		4.61	4.62	64	STATE ILLINOIS	0.42		0.15	0.58
65	COCA COLA			4.17	4.17	65	RY	0.42			0.42
66	STANDARD CHARTERED	0.01		3.74	3.75	66	GOVT OTHER	0.42			0.42
67	BERKSHIRE HATHAWAY	2.91		0.53	3.44	67	STATE MASSACHUSETTS	0.41		0.10	0.50
68	STATE TEXAS	3.03		0.15	3.18	68	WEST LB	0.40		0.01	0.42
69	INTESA SANPAOLO SPA	0.04		3.09	3.13	69	ALASKA HOUSING FINANCE CORP	0.39		0.01	0.40
70	BPCE			3.02	3.02	70	NO GUARANTOR DEFINED	0.38			0.38

Investment Type of Guaranteed Securities with Guarantor Exposure to the Top 10 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 investment type of guaranteed securities with exposure to the top 10 parents. Using November data from 2010, 2011, and 2012, we calculate each parent's dollar guarantees to the money market fund industry and how those dollars are allocated across investment types.

Consider the third row of the table, JPMorgan Chase in November 2012. The results show that in November 2012, the money market fund industry had \$42.43 billion invested in securities that had guarantees with parent exposure to JPMorgan Chase.

The results show that usually over 90% of the dollar value of guarantees comes from VRDNs. The lowest fraction of VRDNs is 79.37%, which is for State Street in November 2010. At that time, 11.00% of State Street's guarantees were written on Asset Backed Commercial Paper, and 7.36% of them were written on Other Municipal Debt.

Investment Type of Guaranteed Securities with Guarantor Exposure to the Top 10 Parents All Funds and All Securities Excluding Public Debt

Parent	Date	Total Amortized Cost (\$Billions)	Investment Type									Total	
			ABCP	CD	FINANCIAL CO CP	INVEST CO	OTHER CP	OTHER INSTR	OTHER MUNI DEBT	OTHER NOTE	VRDN		
JPMORGAN CHASE	10-Nov	41.33	0.41%	0.64%				1.06%		5.94%	0.20%	91.76%	100%
JPMORGAN CHASE	11-Nov	47.62	1.21%			0.52%		1.06%	0.05%	4.97%		92.19%	100%
JPMORGAN CHASE	12-Nov	42.43	1.15%			0.58%		1.15%	0.05%	5.68%		91.40%	100%
BANK OF AMERICA	10-Nov	41.59	0.90%		0.35%			1.75%	0.04%	2.88%	0.47%	93.62%	100%
BANK OF AMERICA	11-Nov	36.50			0.94%	0.91%		1.93%	0.04%	2.72%	0.37%	93.09%	100%
BANK OF AMERICA	12-Nov	22.66			0.49%	1.47%		1.41%		2.70%	0.06%	93.87%	100%
WELLS FARGO	10-Nov	27.72						2.33%		9.21%	0.08%	88.37%	100%
WELLS FARGO	11-Nov	27.84	0.98%					1.13%		8.02%	0.05%	89.82%	100%
WELLS FARGO	12-Nov	26.97	0.37%					0.89%		13.66%	1.00%	84.08%	100%
CITI	10-Nov	19.20	0.62%			0.21%		0.36%	0.39%	1.13%		97.29%	100%
CITI	11-Nov	20.92			1.12%	6.68%		0.89%		0.80%		90.51%	100%
CITI	12-Nov	15.94				6.10%		0.23%		1.37%		92.30%	100%
US BANCORP	10-Nov	16.08						0.89%		5.94%	0.52%	92.65%	100%
US BANCORP	11-Nov	17.13						0.60%		5.43%	0.58%	93.39%	100%
US BANCORP	12-Nov	16.02						0.87%		4.78%	0.73%	93.62%	100%

RBC	10-Nov	8.47	7.46%		6.21%	3.37%	0.13%	82.83%	100%
RBC	11-Nov	10.15	3.23%		0.29%	5.65%		90.83%	100%
RBC	12-Nov	12.66	6.86%		0.46%	5.07%		87.61%	100%
DEUTSCHE	10-Nov	6.90	1.38%			1.03%		97.60%	100%
DEUTSCHE	11-Nov	6.98	14.74%		2.75%	0.04%		82.47%	100%
DEUTSCHE	12-Nov	10.29	12.30%		1.90%	1.08%		84.72%	100%
ASSURED GUARANTY	10-Nov	14.68	0.72%			1.70%	0.37%	97.20%	100%
ASSURED GUARANTY	11-Nov	6.16				1.83%	1.22%	96.95%	100%
ASSURED GUARANTY	12-Nov	4.22				2.26%	1.78%	95.96%	100%
PNC FINANCIAL SERVICES	10-Nov	5.34				2.15%	0.14%	97.70%	100%
PNC FINANCIAL SERVICES	11-Nov	7.12	2.46%		0.91%	0.65%		95.98%	100%
PNC FINANCIAL SERVICES	12-Nov	7.48	1.42%		0.69%	1.59%		96.30%	100%
STATE STREET	10-Nov	5.36	11.00%		2.28%	7.36%		79.37%	100%
STATE STREET	11-Nov	7.02			2.36%	12.45%		85.18%	100%
STATE STREET	12-Nov	7.73			1.43%	14.67%		83.90%	100%