Closed-End Funds / U.S.A.

CEF ARPS Ten Years After the Financial Crisis

Redemptions Continue at Slow Pace as CEFs Focus on Economics **Special Report**

Legacy Positions Remain: Roughly \$5 billion of closed-end fund (CEF) ARPS remain outstanding (as reported year end 2016), down 93% from over \$60 billion in 2007. CEFs continue to redeem auction-rate preferred shares (ARPS) at discounts to par, albeit at a slow pace. In 2016, \$443 million of ARPS were redeemed, \$407 million of which was at a discount. So far in 2017, \$166 million of ARPS have been redeemed, \$64 million at a discount. Fitch expects the redemptions to continue for CEF ARPS that remain outstanding.

Alternatives Available: Over the last few years alternative financing options to ARPS have grown significantly. For municipal funds these include preferred shares placed with banks, money funds, and bond funds. For taxable funds alternatives include notes and preferred shares placed with insurance companies and retail investors as well as bank financing. While initially more expensive than ARPS, these options may be attractive for CEFs in a rising rate environment, especially when combined with a discounted ARPS tender.

Cost of Liquidity: The prevalence of discounted redemptions reflects the desire of ARPS holders to exit their positions. ARPS have limited liquidity in the secondary market and typically trade at significant discounts to par, allowing funds to exercise bargaining power to push down the tender price. ARPS holders are in turn incentivized to free up cash and reinvest in other assets at higher yields.

Activist Investors Apply Pressure: In 2008 and 2009, funds redeemed ARPS mostly to preserve their reputation, provide liquidity to preferred shareholders, and avoid paying high dividends on the ARPS due to failed-auction penalties. Much of the current redemption activity is due to activist investors who have purchased ARPS at discounts on the secondary market. These activist investors use board-voting privileges conferred by owning the ARPS to apply pressure on the funds to redeem the shares.

Discounts Drive Refinancing Economics: Redemption discounts are critical to the refinancing economics for CEFs, as discounts are immediately accretive to a fund's NAV and can materially offset the higher cost of refinancing options, particularly as interest rates rise.

Holdouts Remain: Some fund managers continue to maintain leverage through ARPS due to its common shareholder friendly features, such as a perpetual term, callability, and low cost. Fifteen of 47 fund managers continue to employ ARPS as a source of leverage in their closed end funds. Among managers with ARPS outstanding, the top manager accounts for 40% of all outstanding ARPS, with 79% held by the top five managers.

ARPS Tenders and Redemptions



Related Research

Fitch Closed-End Fund Leverage Dashboard (May 2017) ARPS Discounts Widen as Investor Base Shifts (Original Report) (July 2015)

Related Criteria

Closed-End Funds and Market Value Structures Rating Criteria (July 2017)

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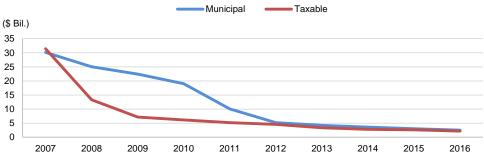
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Ever Shrinking ARPS Balances

Since the ARPS auctions froze in 2008, fund managers have been actively redeeming these securities. The chart below shows that taxable CEFs' outstanding ARPS balances have declined 93%, from approximately \$31.5 billion to \$2.2 billion as of end 2016. Municipal CEFs were slower to reduce balances, but have almost caught up, declining 91.6% from approximately \$30.2 billion to \$2.5 billion.

ARPS Outstanding



Source: SEC.

Activism Continues to Drive Tenders

Investor activism has been a primary driver of recent tenders. These investors purchase ARPS of a target fund on the secondary market at a significant discount to par with the goal of nominating representatives to the fund's board. Once the activist has accumulated a significant position they will press the board to provide liquidity to the ARPS holders above the price they acquired the ARPS at.

For example, an activist may purchase ARPS of a fund at an average price of 70% of par value. The activist would then nominate representatives to the fund's board, and if successful, press the board to conduct a tender offer for the ARPS at 90% of par value. The activist would then participate and tender all of the acquired ARPS, netting a 20 point (28.5%) gain. ARPS tenders typically follow an activist investor's 13D filing, which discloses their holdings of the respective fund's ARPS and announces their intent to discuss liquidity solutions with the fund. An investor is required to file a Schedule 13D with the SEC when he acquires more than 5% of any class of a company's shares as well as disclose any other persons who have voting power or the authority to sell the security.

Discounts Accretive to NAV

A fund can increase its net asset value when redeeming ARPS at a discount, which can help drive the refinancing economics. To illustrate, a fund with \$100 million in assets and \$40 million in ARPS as its only leverage has about \$60 million of net asset value. If the fund redeems \$10 million of ARPS for \$9 million (a 0.90 tender price), the immediate effect on the balance sheet is an increase in its net asset value by \$1 million, or 1.7%

Discount Offsets Higher Refinancing Cost

Higher leverage costs of new debt can be offset by redeeming the ARPS at a discount, providing for positive refinancing economics despite paying a higher rate on new leverage. For example, a tender at 95% of par would cover the incremental cost of refinancing at a rate that is 70 bps higher per year for seven years without accounting for refinancing transaction

costs. If the redemption discount was 87% then the incremental refinancing cost of 70 bps would be covered for 18 years. As the redemption discount increases, fund managers are more incentivized to provide liquidity to shareholders. The economics of refinancing can vary depending on the ARPS dividend payment formula as well as changes in interest rates.

Expectations for continued rising interest rates coupled with the ability managers have shown to be able to redeem a substantial portion of outstanding ARPS below par will be strong incentives for fund managers and fund boards to consider refinancing fund leverage.

See Appendix A below for a list of ARPS redemptions.

Appendix A Auction-Rate Preferred Stock Redemptions 2016

Date	Ticker		Manager	Total ARPS Outstanding (\$)	ARPS Redeemed (\$)	ARPS Redeemed (%)	Price Per Share (%) ^a	Replace With
12/9/14	BPK	BlackRock Municipal 2018 Term Trust	BlackRock	22,750,000	22,750,000	100.0	100.0	
1/16/15	PTY	PIMCO Corporate Income & Opportunity Fund	PIMCO	325,000,000	87.050.000	26.8	87.0	
1/22/15	MNP	Western Asset Municipal Partners Fund Inc.	Legg Mason	85,000,000	66,500,000	78.2		VRDPs
1/22/15	MMU	Western Asset Managed Municipals Fund Inc.	Legg Mason	250,000,000	217,575,000	87		VRDPs
1/22/15	SBI	Western Asset Intermediate Muni Fund Inc.	Legg Mason	50,000,000	47,400,000	94.8		VRDPs
2/23/15	BLH	BlackRock New York Municipal 2018 Term Trust	BlackRock	12,050,000	12,050,000	100.0	100.0	VICDI 5
3/10/15	DNY	The Denali Fund (Reorganized into BIF)	Denali	21,950,000	21,950,000	100.0	100.0	
5/18/15	TLI	Western Asset Corporate Loan Fund Inc.		35,000,000	, ,	97.5	90.0	
		(Previously LMP Corporate Loan Fund)	Legg Mason	, ,	34,125,000			
6/1/15	BKK	BlackRock Municipal 2020 Term Trust	BlackRock	53,457,447	5,025,000	9.4	100.0	
6/1/15	KSM	Deutsche Strategic Municipal Income	Deutsche	9,525,000	9,525,000	100.0	100.0	
6/1/15	KTF	Deutsche Municipal Income Trust	Deutsche	9,885,000	9,885,000	100.0	100.0	
7/27/15	AFB	AllianceBernstein National Municipal Income Fund	AllianceBernstein	242,225,000	150,100,000	62.0	94	VMTPs
7/27/15	AKP	Alliance California Municipal Income Fund	AllianceBernstein	72,550,000	42,675,000	58.8	94.0	VMTPs
7/31/15	BKK	BlackRock Municipal 2020 Term Trust	BlackRock	48,305,085	2,850,000	5.9	100.0	
10/16/15	PCN	PIMCO Corporate & Income Strategy Fund	PIMCO	169,000,000	113,475,000	67.1	83.0	
10/16/15	PHK	PIMCO High Income Fund	PIMCO	292,000,000	190,025,000	65.1	82.5	
11/23/15	TLI	Western Asset Corporate Loan Fund Inc. (Previously LMP Corporate Loan Fund)	Legg Mason	875,000	875,000	100.0	90.0	
10/5/15	EIA	Eaton Vance California Municipal Bond Fund II	Eaton Vance	25,700,000	24,800,000	96.5	95.5	iMTPs
10/5/15	EIV	Eaton Vance Municipal Bond Fund II	Eaton Vance	44,700,000	39,950,000	89.4	95.5	iMTPs
10/5/15	MAB	Eaton Vance Massachusetts Municipal Bond Fund	Eaton Vance	13,575,000	12,950,000	95.4		iMTPs
0/5/15	MIW	Eaton Vance Michigan Municipal Bond Fund	Eaton Vance	13,325,000	10,525,000	79.0	95.5	iMTPs
10/5/15	EMJ	Eaton Vance New Jersey Municipal Bond Fund	Eaton Vance	19,600,000	17,375,000	88.6		iMTPs
10/5/15	EIO	Eaton Vance Ohio Municipal Bond Fund	Eaton Vance	17,000,000	14,750,000	86.8		iMTPs
10/5/15	EIP	Eaton Vance Pennsylvania Municipal Bond Fund	Eaton Vance	21,175,000	20,450,000	96.6		iMTPs
10/5/15	NYH	Eaton Vance New York Municipal Bond Fund II	Eaton Vance	13,250,000	11,500,000	86.8		iMTPs
10/5/15	CEV	Eaton Vance California Municipal Income Trust	Eaton Vance	49,975,000	, ,	94.0		iMTPs
		1		, ,	46,975,000			
10/5/15	MMV	Eaton Vance Massachusetts Municipal Income Trust	Eaton Vance	20,050,000	16,800,000	83.8		iMTPs
10/5/15	EMI	Eaton Vance Michigan Municipal Income Trust	Eaton Vance	17,500,000	16,850,000	96.3		iMTPs
10/5/15	EVN	Eaton Vance Municipal Income Trust	Eaton Vance	120,150,000	105,375,000	87.7		iMTPs
10/5/15	EVJ	Eaton Vance New Jersey Municipal Income Trust		33,425,000	29,000,000	86.8		iMTPs
10/5/15	EVY	Eaton Vance New York Municipal Income Trust	Eaton Vance	33,725,000	29,600,000	87.8		iMTPs
10/5/15	EVO	Eaton Vance Ohio Municipal Income Trust	Eaton Vance	22,725,000	18,400,000	81.0	95.5	iMTPs
10/5/15	EVP	Eaton Vance Pennsylvania Municipal Income Trust	Eaton Vance	21,175,000	16,975,000	80.2	95.5	iMTPs
1/6/16	BKK	BlackRock Municipal 2020 Term Trust	BlackRock	45,918,367	11,250,000	24.5	100.0	
2/10/16	CMU	MFS High Yield Municipal Trust	MFS	3,900,000	3,900,000	100.0	100.0	VMTPs
2/10/16	CXE	MFS High Income Municipal Trust	MFS	5,625,000	5,625,000	100.0	100.0	VMTPs
2/10/16	CXH	MFS Investment Grade Municipal Trust	MFS	825,000	825,000	100.0		VMTPs
2/10/16	MFM	MFS Municipal Income Trust	MFS	7,275,000	7,275,000	100.0	100.0	
2/12/16	PHF	Pacholder High Yield Fund	JP Morgan	43,000,000	43,000,000	100.0	95.5	
3/25/16	EFR	Eaton Vance Senior Floating-Rate Trust	Eaton Vance	131,300,000	35,400,000	27.0	95.0	
3/25/16	EVF	Eaton Vance Senior Income Trust	Eaton Vance	110,000,000	48,400,000	44.0	95.0	
10/7/16	BKK	BlackRock Municipal 2020 Term Trust	BlackRock	34,588,824	7,050,000	20.4	100.0	
12/15/16	BKK	BlackRock Municipal 2020 Term Trust	BlackRock	27,522,936	6,000,000	20.4	100.0	
1/30/17	BKK			, ,	, ,			
		BlackRock Municipal 2020 Term Trust	BlackRock	21,518,987	10,200,000	47.4	100.0	
5/25/17	PMM	Putnam Managed Municipal Income Trust	Putnam	123,500,000	24,150,000	19.6	89.75	
5/25/17	PMO	Putnam Municipal Opportunities Trust	Putnam	178,850,000	40,125,000	22.4	89.75	
6/5/17	BKK	BlackRock Municipal 2020 Term Trust	BlackRock	11,318,987	2,700,000	23.9	100.0	
6/30/17	GGT	The Gabelli Multimedia Trust Inc.	Gabelli	15,000,000	250,000	98.3	100.0	
7/10/17	MZF	Managed Duration Investment Grade Municipal Fund	Insight	69,450,000	69,450,000	100.0		VMTPs
7/28/17	BKK	BlackRock Municipal 2020 Term Trust	BlackRock	8,625,731	4,425,000	51.3	100.0	

^aARPS redeemed below par are the result of tender offers. Source: SEC Filings.

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