

Appendices I. through XII. for “Tavakoli Structured Finance Revokes the Credit Rating Agencies’ NRSRO Designation”

By Janet M. Tavakoli, President, Tavakoli Structured Finance, Inc.

7/26/2011

[The text of this article can be viewed here.](#)

This pdf is linked within the text and will open in a separate window.

APPENDIX I.

APPENDIX I. is appended as a separate attachment.

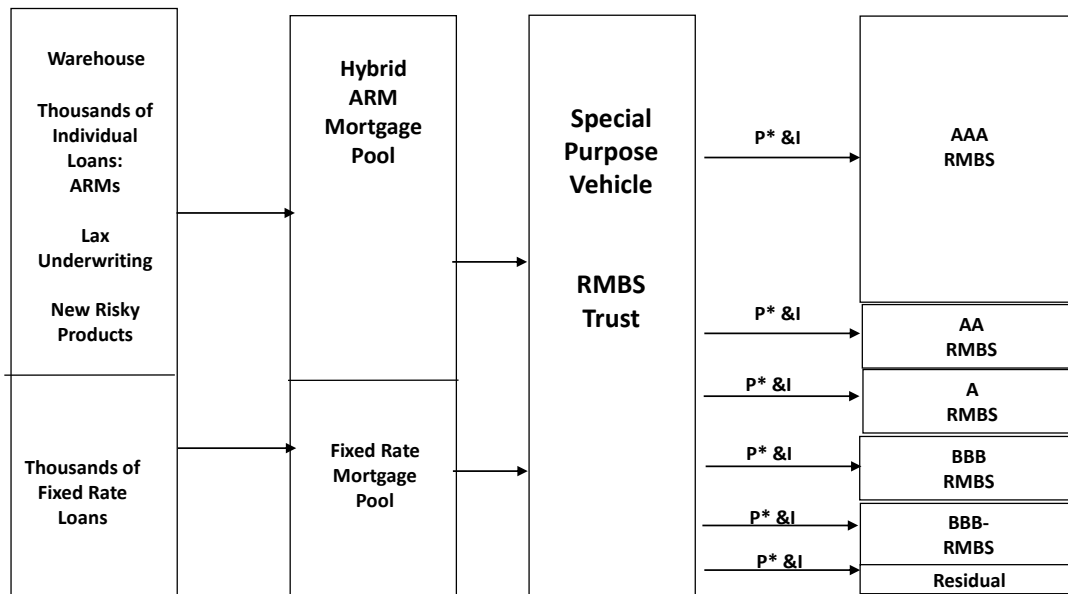
The title of the document is "[Comments on SEC Proposed Rules and Oversight of NRSROs](#)," February 13, 2007, by Janet Tavakoli, Tavakoli Structured Finance, Inc. This letter is still posted on the SEC's web site.

Appended to the letter is an article about synthetic CDOs and the flaws of correlation models, "The Elusive Income of Synthetic CDOs," by Janet Tavakoli, *Journal of Structured Finance*, Winter 2006 Volume 11, Number 4.

APPENDIX II.

Residential Mortgage Backed Securities (RMBS)

Mortgage lender(s) work with mortgage brokers to originate mortgage loans for investment bank warehouses. Investment banks provide credit lines to the mortgage lenders, and also purchase and warehouse the loans in preparation for structuring an RMBS.

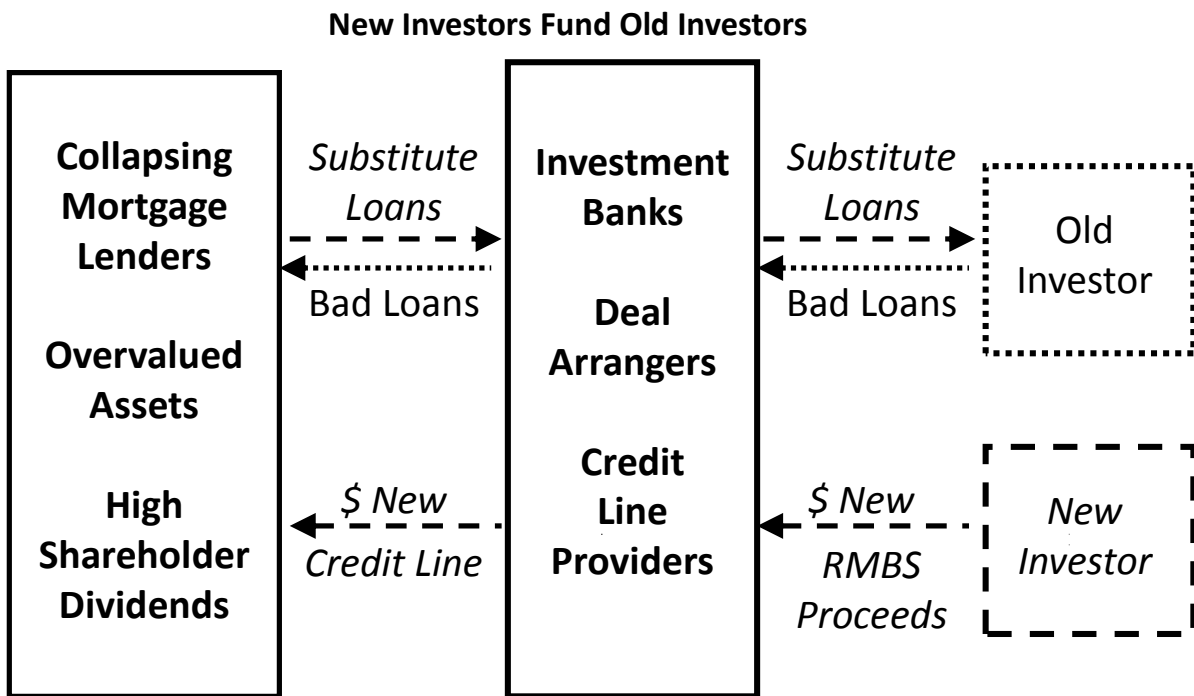


*Structures vary. Principal and interest payments are usually allocated to each tranche in sequence. Excess interest is used to reimburse collateral shortfalls.

Source: *Structured Finance & Collateralized Debt Obligations*, by Janet Tavakoli (Wiley 2003, 2008)

APPENDIX III.

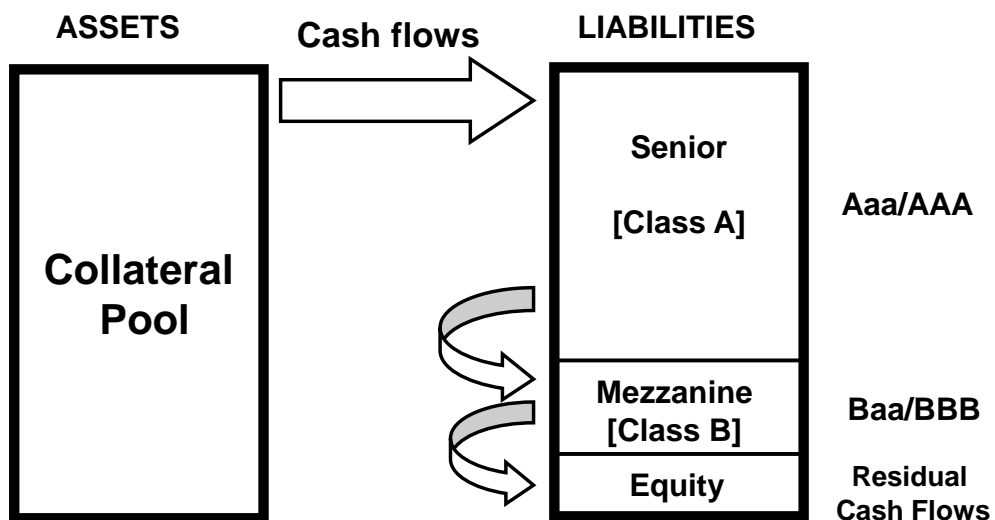
Largest Ponzi Scheme in Capital Markets' History



Source: *Structured Finance & Collateralized Debt Obligations*, by Janet Tavakoli (Wiley, 2008)

APPENDIX IV.

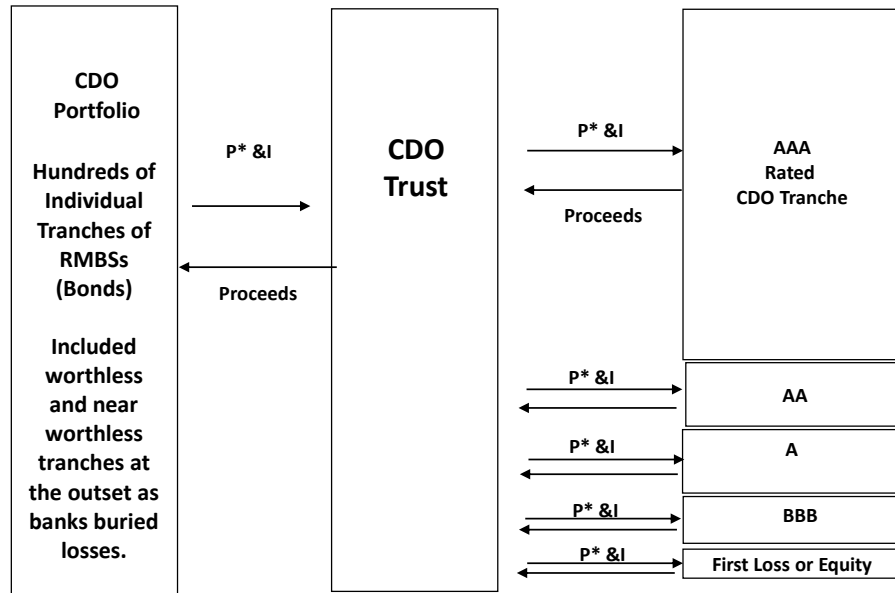
Basic CDO Structure



Source: *Structured Finance & Collateralized Debt Obligations*, by Janet Tavakoli (Wiley, 2008)

APPENDIX V.

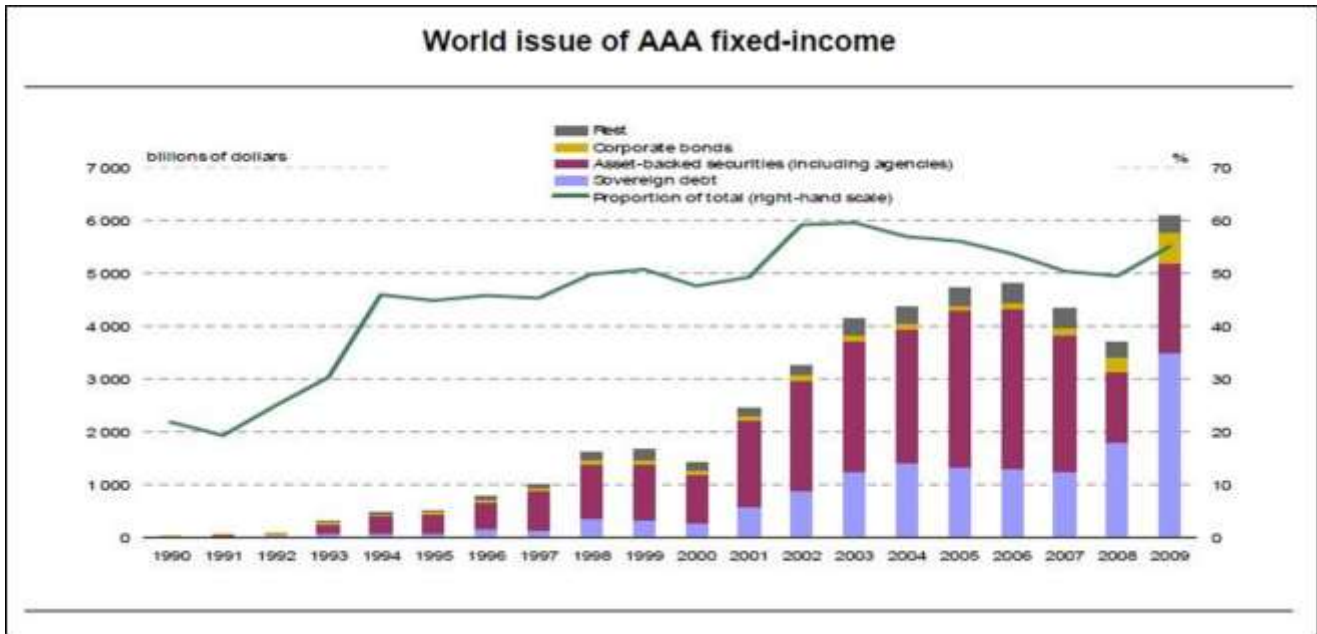
CDO Backed By Subprime, Alt-A, Risky Prime Backed RMBSs



*Structures vary; deal terms vary. Principal and interest payments are allocated to each tranche in sequence. Excess interest is used to reimburse collateral shortfalls, but cash flows may be diverted, if allowed.

Source: *Structured Finance & Collateralized Debt Obligations*, by Janet Tavakoli (Wiley, 2008)

APPENDIX VI.



Source: Basel Committee on Banking Supervision. The Joint Forum “Report on Asset Securitisation Incentives,” July 2011, Bank for International Settlements. P. 6 Figure 3. The implications of this chart did not escape the notice of mainstream financial media. Tracy Alloway at *FTAlphaville* highlighted this chart on July 15, 2011 in a commentary: “The AAA bubble.”

The report noted that from 1990 to 2006, the peak year for ABS issuance, “AAA” rated assets ballooned from 20 percent of rated fixed-income issuance to almost 55 percent. Many of these came at the tail end of this period when the “AAA” ratings were unwarranted, in fact many warranted a junk rating, but BIS didn’t mention it. In the first half of 2007, virtually every “AAA” of ABS CDOs warranted junk ratings, but the report did not mention that, either.

The BIS notes that as of 2009, “AAA” issuance from Sovereigns that still have that rating ballooned to outstrip the “AAA” ABS issuance of 2006. This is no surprise. For example, in the U.S. securitized assets were dumped on the balance sheets of the Fed, special purpose entities administered by the Fed, Fannie Mae, and Freddie Mac. Government guarantees allowed for new issuance of ABS CDOs that otherwise would have no buyers, since the rating agencies are universally mistrusted.

Government bailouts to recapitalize the banks meant that new sovereign debt had to be issued. Capital spending, the biggest driver of economic growth was starved as funds were diverted to banks. The phony “AAA” ratings awarded to ABS CDS and other structured financial products helped weaken the economies of formerly “AAA” rated countries while increasing ostensibly “AAA” rated debt issuance.

APPENDIX VII.

Long-Term Rating Scales

Long-Term Credit Ratings		
Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA-	AA-
Aa3	AA-	AA-
A1	A+	A+
A2	A-	A-
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB-	BBB-
Baa3	BBB-	BBB-
Ba1	BB+	BB+
Ba2	BB-	BB-
Ba3	BB-	BB-
B1	B+	B+
B2	B	B
B3	B-	B-
Caa1	CCC+	CCC+
Caa2	CCC	CCC
Caa3	CCC-	CCC-
Ca	CC	CC
C	C	C
	D	D

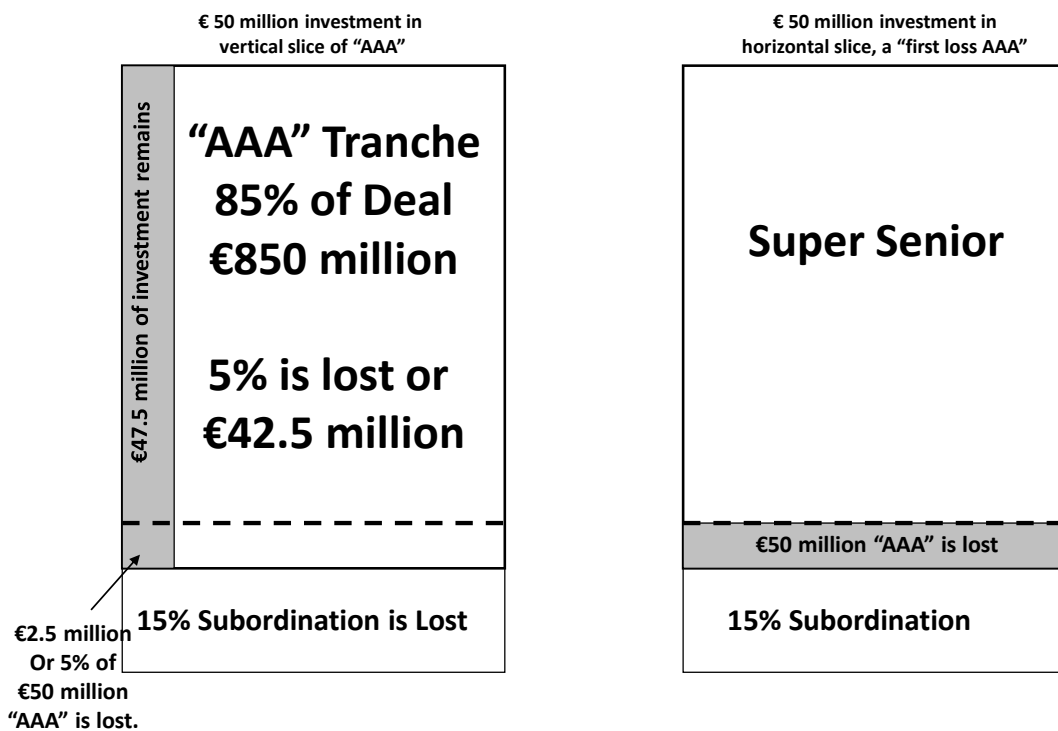
On the Moody's scale, Baa3 and above is considered investment grade, and anything below that is considered speculative grade. For Standard and Poor's and Fitch, anything above BBB- is considered investment grade and anything below is considered speculative grade.

"Super Senior" is not shown on this scale. "Super Seniors" perverted the meaning of "AAA." So-called "AAA" tranches became the "first loss" tranche for the so-called Super Senior. (See also Section III. A. and APPENDIX VIII.)

APPENDIX VIII.

The “Super Senior” Effect

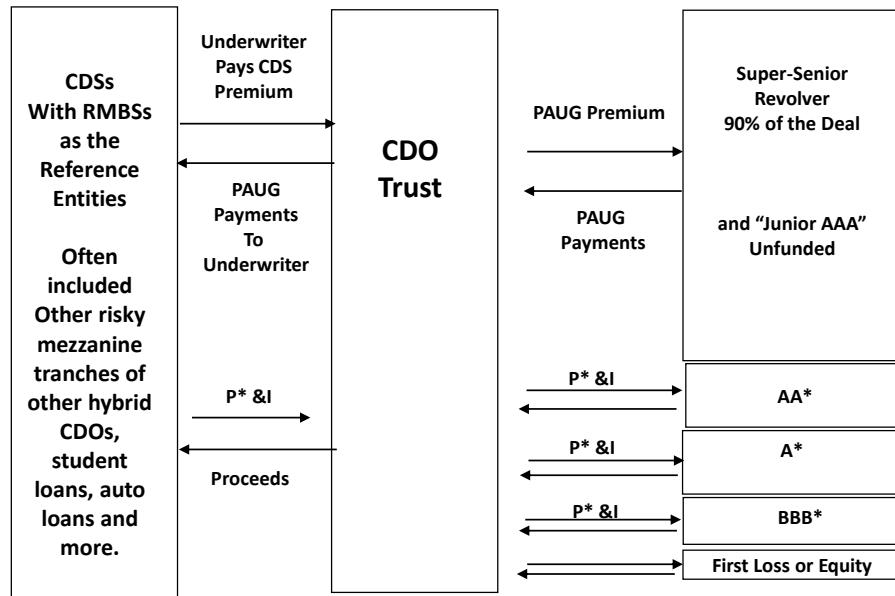
“Super senior” tranches not only further perverted the meaning of “AAA,” they didn’t live up to their billing as super-safe. Investors in super senior tranches of late vintage CDOs often lost almost their entire investment. The example below shows what happens to the “AAA,” when only 20% of the underlying portfolio of assets is lost for two comparable structures. In late vintage CDOs, much more than 20% of the underlying portfolio value was lost.



Effect of 20% Losses On “AAAs” For Two CDOs Backed By a €1 billion Portfolio of Assets

APPENDIX IX.

Typical Multi-Sector CDO Backed By Subprime RMBSs



*Not to scale. These are usually funded notes, but the first loss tranche and some junior tranches may be unfunded. PAUG stands for "Pay As You Go," a type of Credit Default Swap (CDS) contract.

Source: *Structured Finance & Collateralized Debt Obligations*, by Janet Tavakoli (Wiley, 2008)

APPENDIX X.

ABS CDOs Underwritten by Merrill Lynch in 2007

Source: Tavakoli Structured Finance - June 10, 2008

ABS CDOs Underwritten by Merrill Lynch in 2007				
Estd Closing	Deal Name	Manager	Appx. Size (\$MM)*	Status June 10, 2008
1/11/2007	Lexington Cap Fundg III	Harding Advsy	1,212.00	Toast**
1/24/2007	Port Jackson CDO 2007-1	Basis Capital	350.00	Toast**
1/25/2007	Highridge ABS CDO I	ZS Structured Credit Cap Mgt	1,500.00	Acceleration**
2/21/2007	Maxim High Grade CDO I	Maxim Capital Mgt	2,000.00	EOD**
2/27/2007	Broderick CDO 3	SCM Advisors	1,500.00	Acceleration**
2/27/2007	Kleros Real Estate CDO IV	Strategos Capital Mgt	1,000.00	Undeclared EOD
3/1/2007	Norma CDO I	NIR Capital Mgt	1,500.00	Acceleration**
3/8/2007	Maxim High Grade CDO II	Maxim Capital Mgmt	2,000.00	EOD**
3/8/2007	Newbury Street CDO Ltd	Mass. Fincl Svcs. Inv.	2,000.41	EOD
3/9/2007	South Coast Funding IX	TCW Asset Mgmt	540.00	Toast**
3/27/2007	Euler ABS CDO I	Babcock and Brown	675.00	Toast**
3/27/2007	GLACIER-V	Terwin Money Mgmt	498.50	Toast**
3/29/2007	Lexington Capital Funding V	Harding Advisory	615.00	Toast**
3/29/2007	Libertas Preferred Funding IV	Strategos Capital Mgt	500.00	Toast**
3/29/2007	Silver Marlin	Sailfish Structured Inv	1,250.50	EOD
4/3/2007	Kleros Preferred Funding VII	Strategos Capital Mgt	1,498.00	EOD**
4/5/2007	NEO CDO 2007-1	Harding	300.00	Liquidation**
4/11/2007	Forge ABS High Grade CDO I	Forge ABS LLC	1,503.50	EOD**
4/12/2007	IMAC CDO 2007-2	Ivy Asset Mgmt	500.00	Liquidation**
4/18/2007	Mars CDO I	Chotin Group	618.50	Acceleration**
4/26/2007	Brookville CDO I	Petra Capital	499.00	EOD**
4/26/2007	Fourth Street Funding Ltd	N.I.R. Capital Mgmt	500.50	Acceleration**
4/26/2007	Western Springs CDO	Deerfield Capital Mgt.	495.60	Acceleration**
5/3/2007	Jupiter High Grade CDO VI	Harding Advisory	1,501.10	Toast**
5/10/2007	Tazlina Funding - II	Winter Group	1,500.00	EOD**
5/25/2007	West Trade Funding CDO III	N.I.R. Capital Mgmt	2,500.00	Toast**
6/1/2007	Robeco HG CDO-I	Robeco Investment Mgt	1,100.55	Toast**
6/7/2007	Durant CDO 2007-1	SCM Advisors	400.00	Liquidation**
7/26/2007	Biltmore CDO 2007-1	ING Clarion Capital	1,000.00	EOD**
8/28/2007	Bernoulli High Grade CDO-II	Babcock and Brown	1,500.00	Acceleration**

* Total Notional Amount is approximately \$32.6 billion

** Means the original topmost "triple-A" tranche has been downgraded to below investment grade, i.e., junk by one or more rating agencies. Note that *all* CDOs shown above have one or more originally "triple-A" tranches downgraded below investment grade by one or more rating agencies.

An event of default (EOD) usually means failure of an overcollateralization test usually related to a par "haircut" as defined in the prospectus. Senior noteholders and/or other parties to the transaction may choose acceleration (making the principal and interest immediately due and payable), or liquidation (selling the underlying portfolio collateral). Acceleration may be followed by liquidation. Liquidated portfolios have had poor recovery value. "Toast" means the originally "triple-A" tranches have all been downgraded to "junk" by one or more rating agencies that rated the deal, and there is an undeclared EOD. Undeclared EOD means that one or more originally "triple-A" tranches is downgraded below junk status, yet there is an undeclared EOD. The undeclared EOD may be due to no provision in the documents or the declaration is pending.

APPENDIX XI. – Merrill’s Durant CDO-Squared circa January 2008

Issuer	Par Amount	Deal Type	Orig Moody's	Orig Moody's	Orig S&P	S&P	Orig Fitch	Fitch	Min Rating	Vintage
Sagittarius CDO	10,000,000	CDO	A2	Ca	A	A-	-	-	A	2007H1
TABS CDO	5,000,000	CDO	Baa3	Ca	BBB-	BBB	-	-	BBB	2006H2
Auriga CDO	3,927,669	CDO	Baa2	Ca	BBB	BBB-	-	-	BBB	2006H2
Longridge ABS CDO	1,300,000	CDO	A2	Ca	A	A-	-	-	A	2006H2
Longridge ABS CDO	7,932,845	CDO	Baa2	Ca	BBB	BBB-	-	-	BBB	2006H2
TABS CDO	5,000,000	CDO	Baa1	Ca	BBB+	BBB	-	-	BBB	2006H2
BFC CDO	9,841,440	CDO	A2	Baa1	A	A-	-	-	A	2006H1
Camber	10,000,000	CDO	A3	A3	A-	A-	-	-	A	2005H2
West Trade Funding CDO	9,998,991	CDO	A2	Baa1	A	A	-	-	A	2007H1
Camber	10,000,000	CDO	A2	Ba1	A	A	-	-	A	2006H1
Camber	7,044,240	CDO	A2	Ba2	A	A	-	-	A	2007H1
Cairn Mezz ABS CDO	10,175,056	CDO	A2	Ba2	A	A	-	-	A	2006H2
Cairn Mezz ABS CDO	10,000,000	CDO	A3	Ba2	A-	A-	-	-	A	2007H1
Corona Borealis	6,000,000	CDO	A2	Ba3	A	A	-	-	A	2007H1
GSC ABS CDO	10,000,000	CDO	A2	Baa1	A	A-	A	-	A	2006H1
Libra CDO	7,000,000	CDO	A2	Ba2	A	A-	-	-	A	2006H2
Libertas Preferred Funding	10,000,000	CDO	A2	Baa1	A	A	A	-	A	2006H1
Montauk Point CDO	10,000,000	CDO	A2	Ba1	A	A	-	-	A	2006H1
Octans CDO	10,000,000	CDO	A2	Ba2	A	A-	-	-	A	2006H2
Shasta CLO	10,000,000	CDO	Baa2	Baa2	BBB	BBB	-	-	BBB	2007H1
Topanga CDO	10,124,485	CDO	A2	B1	A	A	-	-	A	2006H2
Tallships Funding	9,936,581	CDO	A2	Ba2	A	A	A	-	A	2006H2
Vertical CDO	10,000,000	CDO	A2	Ba1	A	A	A	-	A	2006H1
Vertical CDO	10,000,000	CDO	A2	Ba1	A	A	A	-	A	2006H1
Vertical Virgo	10,000,000	CDO	A2	Ba3	A	A	-	-	A	2006H2
West Trade Funding CDO	9,803,887	CDO	A2	Baa1	A	A-	A	-	A	2006H1
Burr Ridge CLO	7,000,000	CDO	A2	A2	A	A	-	-	A	2006H2
Camber	2,898,075	CDO	Baa2	B3	BBB	BBB	-	-	BBB	2007H1
ColumbusNova CLO 2006-II	8,000,000	CDO	A2	A2	A	A	-	-	A	2006H2
Cairn Mezz ABS CDO	6,548,000	CDO	Aaa	Aa1	AAA	AAA	-	-	AAA	2006H2
Fourth Street Funding	10,000,000	CDO	A2	Ba2	A	A-	A	-	A	2007H1
Istana High Grade ABS CDC	2,494,274	CDO	Baa2	B1	BBB	BBB-	-	-	BBB	2006H2
Kleros Preferred Funding	4,550,000	CDO	A2	Ba3	A	A	-	-	A	2006H2
Kleros Preferred Funding	2,000,000	CDO	Baa2	Caa1	BBB	BBB	-	-	BBB	2006H2
Kleros Preferred Funding	4,000,000	CDO	A2	Ba3	A	A	-	-	A	2006H2
Kleros Preferred Funding	10,000,000	CDO	A2	Baa3	A	A	-	-	A	2007H1
Landmark IX CDO	10,000,000	CDO	A2	A2	A	A	-	-	A	2007H1
Libra CDO	2,887,500	CDO	Baa2	B3	BBB	BBB-	-	-	BBB	2006H2
Libertas Preferred Funding	5,000,000	CDO	A2	Ba3	A	A-	-	-	A	2007H1
Libertas Preferred Funding	4,892,221	CDO	Baa2	B2	BBB	BBB-	-	-	BBB	2007H1
Lexington Capital	5,000,000	CDO	A3	B3	A-	BBB+	A-	-	A	2007H1
Lexington Capital	10,000,000	CDO	A2	B1	A	A-	-	-	A	2007H1
Maxim High Grade CDO	9,996,754	CDO	A2	B1	A	A-	A	-	A	2007H1
Norma CDO	4,904,472	CDO	Baa2	Caa3	BBB	BBB-	BBB	-	BBB	2007H1
Octans CDO	8,000,000	CDO	A2	Caa3	A	A-	-	-	A	2006H2
One Wall Street CLO	8,000,000	CDO	A2	A2	A	A	-	-	A	2007H1
Rockville CDO	1,685,192	CDO	Baa2	B3	BBB	BBB-	-	-	BBB	2006H2
Springdale CDO	6,300,000	CDO	A2	B2	A	A-	-	-	A	2006H2
Stoney Lane Funding	5,000,000	CDO	A2	A2	A	A	-	-	A	2007H1
MKP Vela CBO	7,500,000	CDO	A2	B2	A	A	-	-	A	2006H2
Veritas CLO II	8,000,000	CDO	A2	A2	A	A	-	-	A	2006H1
Whitehorse	8,000,000	CDO	A2	A2	A	A	-	-	A	2007H1
Atrium V	8,000,000	CDO	A2	A2	A	A	-	-	A	2006H2
ING Investment Management	8,000,000	CDO	A2	A2	A	A	-	-	A	2006H2
Morgan Stanley ABS RASC	2,000,000	Home Equity	Aa2	Aa2	AA	AA	-	-	AA	2007H2
Morgan Stanley ABS RASC	1,100,000	Home Equity	A1	A1	AA	AA	-	-	A	2005H2

**Appendix XII.
MBIA's and Ambac's ABS CDO RISKS**

MBIA - per Tavakoli Structured Finance, Inc. as of February 20, 2008						
Deal Name	Closing Date*	Underwriter*	Manager*	Closing Amt (\$)	Insured Amt (\$)	Status**
Broderick 2 CDO	8/25/2006	Merrill	Seneca Cap. Mgt	1,600,000,000	1,118,000,000	Acceleration
ART CDO 2006-1	8/2/2006	UBS	Allianz	1,000,000,000	828,000,000	EOD
Wadsworth CDO	9/28/2006	Morgan Stanley	Hartford Inv. Adv	1,200,000,000	601,000,000	Acceleration
Harp 1 CDO	6/26/2006	Credit Suisse	F.I. Adv	1,000,000,000	723,000,000	some slippage
Jupiter V (20% AP)	3/28/2007	Credit Suisse	Harding	1,500,000,000	1,190,000,000	Acceleration
Broderick 3 CDO (20% AP)	2/8/2007	Merrill	Seneca Cap. Mgt	1,500,000,000	1,203,000,000	Acceleration
Newbury Street	2/13/2007	Merrill	Mass Fin	2,000,400,000	1,684,000,000	EOD
Highridge ABS CDO I	1/25/2007	Merrill	ZS Stcd Cred	1,500,000,000	1,177,000,000	Acceleration
Factor HG 2007-1	5/25/2007	Lloyds/RW Presp	Factor	1,250,000,000	950,000,000	Acceleration
Longshore 2007-III	4/26/2007	TBD	Std Asst Inv.	1,300,000,000	896,000,000	EOD
Bernoulli II (62% AP)	6/20/2007	Merrill	Babcock & Brown	1,500,000,000	563,000,000	Acceleration
Silver Marlin I (62% AP)	2/26/2007	Merrill	Sailfish Stcd Inv	1,250,500,000	469,000,000	EOD
Forge ABS High Grade CDO (70% AP)	3/2/2007	Merrill	Forge ABS LLC	1,503,500,000	450,000,000	EOD
West Trade III (59% AP)	4/25/2007	Merrill	N.I.R. Cap Mgt	2,500,000,000	1,015,000,000	Bad
Tazlina II (62% AP)	4/12/2007	Merrill	Winter Group	1,500,000,000	563,000,000	EOD
Robeco High Grade I (62% AP)	5/24/2007	Merrill	Robeco Inv. Mgt	1,100,550,000	413,000,000	Not Good
Biltmore 2007-1 (62.5% AP)	6/16/2007	Merrill	ING Clarion	1,000,000,000	375,000,000	EOD
Sagittarius I	3/15/2007	Wachovia	Std. Asst. Inv	1,000,000,000	473,000,000	Acceleration
Logan II	5/4/2006	RBC	RBC	1,500,000,000	1,115,000,000	Not Good
Menton III	11/9/2006	RBC	RBC	1,500,000,000	1,077,000,000	Toast
Logan III	2007	RBC	RBC	TBD	990,000,000	Bad
Menton IV	8/24/2007	RBC	RBC	2,500,000,000	2,175,000,000	Bad
* Source: Tavakoli Structured Finance (TSF)					20,048,000,000	
**Source: Rating Agency Reports and TSF interpretation						
"Not Good" means downgrades have begun and/or negative outlook per TSF. "TBD" means to be determined.						
An event of default (EOD) usually means failure of an overcollateralization test usually related to a par "haircut" as defined in the prospectus. Senior noteholders and/or other parties to the transaction may choose acceleration (making the principal and interest immediately due and payable), or liquidation (selling the underlying portfolio collateral). Acceleration may be followed by liquidation. Liquidated portfolios have recently recovered an estimated one-quarter of original value.						

Ambac - per Tavakoli Structured Finance, Inc. As of February 28, 2008						
Deal Name	Closing Date*	Underwriter*	Manager*	Appx.Closing Amt	Insured Amt (\$)	Status**
Diversey Harbor ABS CDO	6/1/2006	Citigroup	Vanderbilt Cap Adv	2,500,000,000	1,875,000,000	Acceleration
Belle Haven ABS CDO 2006-1	5/24/2006	Leh / NIBC Bnk	NIBC	1,996,000,000	1,676,000,000	EOD
Ridgeway Court Funding I	7/26/2006	Citi	CSAC	2,000,000,000	1,570,000,000	Acceleration
Duke Funding High Grade IV (includes CDS CDOs)	1/5/2006	Wach / SocGen	Duke	1,501,100,001	1,313,000,000	TSF - Neg
Duke Funding High Grade V	7/6/2006	Wach / SocGen	Duke	1,500,000,000	1,250,000,000	TSF - BAD
McKinley Funding III	11/30/2006	TBD	Vertical Capital	1,509,617,729	1,187,000,000	EOD
Millerton II High Grade ABS CDO (RMBS, CDOs)	2/28/2006	Credit Suisse	Hyperion	1,300,000,000	1,118,000,000	Not Good
Lancer Funding (I or II?)	TBD	UBS	ACA Mgt	TBD	950,000,000	NG or Liquidation
Cairn High Grade ABS CDO II	9/14/2006	RBS Greenwich	Cairn	896,000,000	820,000,000	EOD
ESP Funding I (RMBS plus CDOs)	9/7/2006	Citigroup	Elliott Std Prod	1,000,000,000	657,000,000	EOD
Longshore CDO Funding 2006-1	1/27/2006	TBD (WS?)	Structd Asst Inv	750,000,000	614,000,000	Not Good
Kleros Preferred Funding VI	3/23/2007	UBS	Strategos (Cohen)	3,000,000,000	2,400,000,000	EOD
RidgeWay Court Funding II	6/27/2007	Citi	CSAC	3,007,000,000	1,950,000,000	EOD
Citation High Grade ABS CDO I	1/11/2007	TBD	Highland	1,100,000,000	941,000,000	EOD
Fiorente Funding Limited (CDS ABS, PAUG)	12/21/2006	RBS	VERO Cap	850,000,000	723,000,000	EOD
Adams Square II	6/27/2007	Citi	CSAC	1,000,000,000	510,000,000	EOD
Class V Funding IV (Moody's only rating)	TBD	Citi	TBD	TBD	1,400,000,000	Neg Watch
888 Tactical Funding	3/15/2007	Citi	Harding	1,042,700,000	500,000,000	EOD
Class V Funding III	2/28/2007	Citi	CSAC	1,000,000,000	500,000,000	EOD
* Source: Tavakoli Structured Finance (TSF)					21,954,000,000	
**Source: Rating Agency Reports and TSF interpretation						
"Not Good" means downgrades have begun and/or negative outlook per TSF. "TBD" means to be determined.						
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