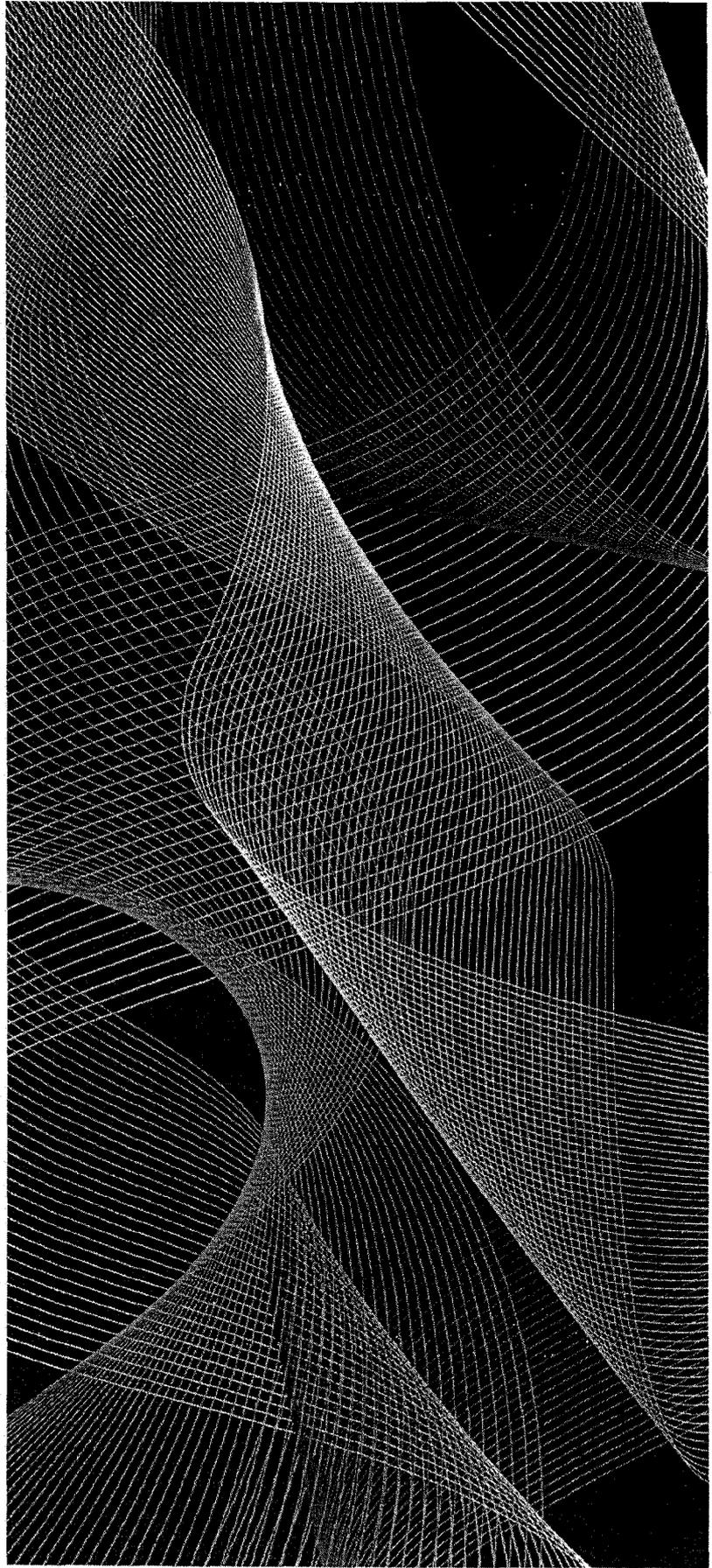


LEHMAN BROTHERS

**Securitizing Leveraged Loans:
Freedom, Spruce, Thalia CLOs**



LBEX-WGM 835699

Introduction

◆ Background

- Credit crunch intensified in early 2008, putting focus on LEH balance sheet and liquidity
- Credit desks proposed securitizing leveraged loans in CLO format in conjunction with other firms
- Liquidity crisis at Bear Stearns and opening of Fed / ECB discount windows to non-banks provided trigger to complete the deal immediately

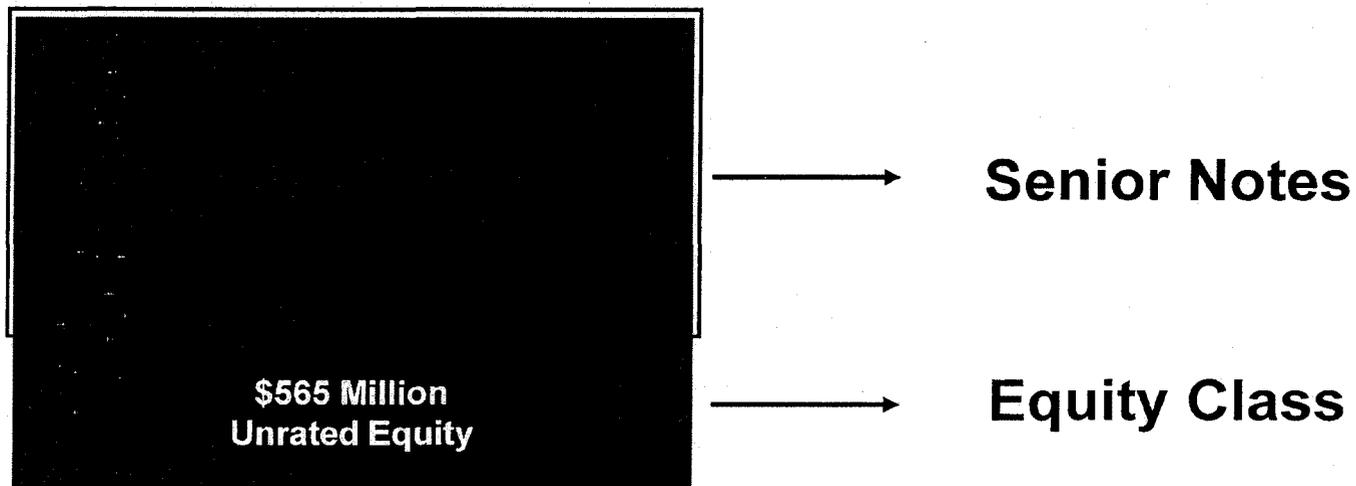
The image shows two overlapping browser windows. The top window is a Microsoft Internet Explorer displaying a Wall Street Journal article from April 11, 2008, titled "How Lehman Opened the Fed's Spigot". The article discusses how Lehman Brothers used financial engineering to obtain cash loans from the Federal Reserve. The bottom window is a Standard & Poor's commentary titled "Leveraged Commentary & Data" regarding a Thalia European CLO. It details the structure of the CLO, including classes A, B, and C, and notes that the transaction is a static vehicle with no reinvestment period.

◆ Key points

- Repackage portfolio of HY leveraged loans across 4 desks into CLO form for financing purposes
- Loans are not deliverable to the Fed / ECB discount window, but CLO tranches are
- Securities thereby created are not meant to be marketed. No balance sheet relief; liquidity relief only *No intention to market*
- No "true sale" opinion of loans to Freedom CLO. Senior note cannot be rated higher than LEH's rating *Still classified as trading*
- PNL continues to be recognized at the underlying loans (trader) level rather than the CLO tranche level

Freedom CLO 2008-1

Freedom LLC – original capital structure



Class	Principal Balance (US\$)	Principal Balance	Issue Price	Rating (Moody's/S&P)	Expected Spread	Expected Average Life (yrs)	Stated Maturity
Senior	\$2,260,000,000	80.00%	100.0%	"A2"/"A"	3ML +2.25%	2.1	Nov 2016
Equity	\$565,000,000	20.00%	100.0%	NR/NR	Excess		Nov 2016
Total	2,825,000,000	100.00%					

Risk Issues

- ◆ Where to recognize risk
 - Risk of entire portfolio of loans should equal risk of combined CLO tranches
 - Risk should follow PNL where possible.
 - Loans level: dummy positions for the underlying loans continue to be marked by traders
 - CLO (tranche) level: analytics not set up initially; risk would be pooled among traders. PNL changes only for equity tranche
 - Various proposals made to reallocate PNL / risk back to traders via TR swaps
 - Event risk cannot be easily reallocated back from CLO tranche back to traders in proportion to their participation

← ~ 30-50 loans

- ◆ Legal entity problems
 - \$2.2bn senior tranche was initially booked in regulated broker-dealer (LBI) while equity in LCPI
 - SEC wanted VaR to be reported for the senior (LBI) tranche

- ◆ Solution
 - Senior notes, not intending to be marketed, were moved out of LBI to LCPI.
 - Senior note can be delivered to Fed window via match book trade via LBI (reverse repo in LBI, LBI repo to Fed)
 - VaR / event risk continues to be calculated at underlying loans level

	Notional	WAL	PV01	Delta		1D 95 VaR	1D 99 VaR	10D 99 VaR
	\$2,825,000,000	2.60	917,723	1.00		9,183,726	16,501,521	52,182,392
Use delta = 0.43 (225bps / 527bps)								
Tranche	Notional	WAL	PV01	Delta	% Risk	1D 95 VaR	1D 99 VaR	10D 99 VaR
Senior	\$2,260,000,000	2.00	452,000	0.43	21.0%	1,931,158	3,469,947	10,972,935
Equity	\$ 565,000,000	5.00	282,500	2.57	79.0%	7,252,569	13,031,575	41,209,457

- ◆ Additional issues
 - Operational risk introduced due to elaborate booking for the trades. Need for dummy loans to flow into Risk
 - Loans continue to be sold in improving market environment, reducing need for these trades — Have reduced pool by ~ 900mm

Deals to Date

	Tranche	Notional	%	Rating	Mat	Rate
◆ Freedom 2008 – \$2.825bn in US leveraged loans, two tranche structure originally – Modified to three tranche structure subsequently to success of Spruce trade	Senior	\$1,540,800,000	80.0%	A2 / A	Nov 2016	3ML+190
	Mezz	\$ 250,400,000	13.0%	B1/B+		3ML+350
	Equity	\$ 134,800,000	7.0%	NR/NR		NA
◆ Spruce – \$1.875bn in US leveraged loans, three tranche structure	Senior	\$1,462,050,000	78.0%	A2 / A	Oct 2017	3ML+190
	Mezz	\$ 243,670,000	13.0%	B1/B+		3ML+350
	Equity	\$ 168,700,000	9.0%	NR/NR		NA
◆ Thalia – €1.1bn in leveraged loans, three tranche structure <i>Which legal entity?</i>	Senior	€700,000,000	63.1%	AAA	Aug 2018	6ML+100
	Sr Mezz	€50,000,000	4.5%	AA		6ML+200
	Jr Mezz	€ 46,000,000	4.1%	A		6ML+400
	Equity	€ 314,000,000	28.3%	NR		NA

Upcoming trades

- ◆ **Kingfisher**
– \$1.1bn in Asia HY loans, three tranche structure
- ◆ **SASCO**
– Real estate loans