

The Fall of Willow

by

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The Willow Fund was a private placement, closed end mutual fund registered by Paine Webber in early 2000. Paine Webber was acquired shortly thereafter by UBS.

Until June 30, 2007, the Willow Fund was invested in distressed obligations including distressed debt (bonds and loans) and common stock with offsetting short debt positions and synthetic short debt positions through its purchase of credit default swaps (CDS). During this first time period the Fund's investors made \$252 million.

After June 2007 the Fund dramatically increased its purchases of CDS and became massively short distressed debt. At its peak, the notional value of the Fund's CDS was more than 20 times as large as its long portfolio of distressed obligations. Investors in the Fund lost \$278.4 million during this second period from June 2007 to December 2012. The Willow Fund was liquidated in 2013.

The Willow Fund understated the risk of its CDS portfolio and did not disclose the change in its investment strategy in 2008 which dramatically increased the Fund's risks. In fact, the Willow Fund stopped reporting the CDS premiums it paid as a line item expense and thereafter bundled them with realized and unrealized gains on losses on its overall securities and derivatives portfolio making it nearly impossible for investors to discern the impact of the Fund's change in strategy and dramatic increase in risk.

Investors in the Willow Fund suffered losses of between \$351 million and \$419 million compared to a diversified portfolio of junk bonds while UBS made over \$100 million selling and managing the Willow Fund.

I. Introduction

Paine Webber launched the PW Willow Fund LLC as a private placement closed end non-diversified mutual fund was managed by a joint venture of PW Fund Advisor LLC (PWFA) and Bond Street Capital LLC in May 2000. UBS acquired Paine Webber later in 2000 and the fund was renamed the UBS Willow Fund LLC and the manager was renamed UBS Fund Advisor LLC (UBSFA).

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Each annual report began with substantially this description of the Fund.²

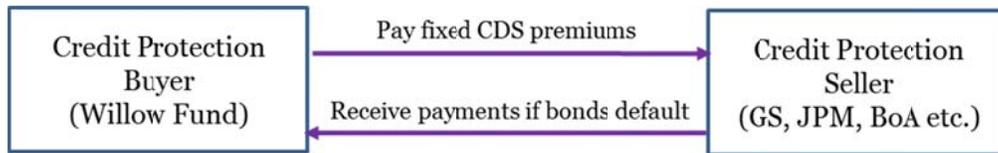
... The Fund's investment objective is to maximize total return. The Fund pursues its investment objective by investing primarily in debt securities and other obligations and to a lesser extent equity securities of U.S. companies that are experiencing significant financial or business difficulties (collectively, "Distressed Obligations"). The Fund also may invest in Distressed Obligations of foreign issuers and other privately held obligations. The Fund may use a variety of special investment techniques to hedge a portion of its investment portfolio against various risks or other factors that generally affect the values of securities and for non-hedging purposes to pursue the Fund's investment objective. These techniques may involve the use of derivative transactions, including credit swaps. The Fund commenced operations on May 8, 2000.

Despite this unchanging description of the Fund's investment strategy, in late 2007 and early 2008 the fund managers were aggressively selling high yield debt short. The Fund increased its purchases of CDS contracts in 2008 and 2009 betting that credit spreads would widen further. The Willow Fund lost \$199 million in 2007, 2008 and 2009 and had net investor withdrawals of \$179 million causing the Fund's assets to shrink from \$476 million to only \$98 million during the three years from December 31, 2006 to December 31, 2009. The CDS purchased by the Fund required it to pay more than \$20 million a year in premiums when its net assets had fallen to around \$100 million. The Fund failed as a result of this massive expense and because credit conditions didn't deteriorate further as the Fund had wagered. The Fund completed its spectacular multi-year collapse in 2012 largely as a result of its leveraged portfolio of CDS contracts.

II. Credit Default Swaps

A Credit Default Swap ("CDS") is a contract that transfers the risk of default on a bond or portfolio of bonds from one party to another. The company, country or municipal authority that issues the bond is called a reference entity and the specific bond is referred to as the reference obligation. A CDS contract involves two parties, a party that bets that an issuer's credit quality will deteriorate (similar to buying insurance against a default) and a party that bets that an issuer's credit quality will improve. The CDS buyer agrees to pay fixed periodic payments called CDS premiums to the CDS seller. In exchange for these CDS premiums, if the reference obligation defaults, the seller must make a cash payment to the CDS buyer equal to the difference between the defaulted bond's face value and its market value.

² From 2008 onward, the first quoted sentence was modified to read "The Fund's investment objective is to maximize total return *with low volatility*." Emphasis added) The fund's annual and semi-annual reports can be downloaded off the SEC website at www.sec.gov/cgi-bin/browse-edgar?action=getcompany&CIK=0001106258&type=N-CSR&dateb=&owner=exclude&count=100.

Figure 1 Credit Default Swap Cash Flows

For example, a CDS buyer might agree to pay 2% per year on a \$10 million of the bond's face value for one year. The buyer pays \$200,000 to the seller and if the reference entity defaults the seller pays the buyer the difference between what the bond is then worth, say \$4 million, and the bond's \$10 million face value. The CDS buyer is paying \$200,000 for the chance that it might receive the \$6 million contingent payment. The CDS premium that makes this bet fair –the “at-market” premium – is equal to the probability of default multiplied by the percentage loss given a default. In our simple example, the one-year probability of default is 33.3% since $2\% = 33.3\% \times 60\%$.³

If the credit risk of a reference obligation increases, at-market CDS premiums will increase. Once a CDS contract is entered into and the CDS premium for that contract is fixed, if CDS premiums increase the credit protection buyer will have a mark-to-market gain. Continuing our example, if immediately after buying the CDS contract the risk of default increases from 33.33% to 50%, the at-market premium will increase from 2% to 3% ($= 50\% \times 60\%$). The CDS buyer will have a mark-to-market gain of \$100,000 because the insurance that was worth \$200,000 could then be resold for \$300,000. Conversely, if at-market CDS premium decreases from 2% to 1% because the reference entity's probability of default drops from 33.3% to 16.7%; the buyer will have a mark-to-market loss of \$100,000 since the insurance which was worth \$200,000 is then worth only \$100,000. Since buyers of CDS gain when the value of reference obligations drop due to increased credit risk and lose when the value of reference obligations increase due to reduced credit risk, the CDS buyer is selling short credit risk.

CDS do not require an upfront exchange of the contract's underlying exposure or “notional value.” CDS contracts are thus leveraged investments. For example, an investor with \$100 in cash could theoretically buy or sell a CDS contract with an arbitrarily large notional amount, e.g., \$100,000. Although the investor doesn't need to have the notional value to buy or sell the contract, he does have to deposit sufficient assets to guarantee his continued CDS premium or contingent payments.

i. Using CDS to Hedge

The Willow Fund said it might use CDS to “hedge a portion of its investment portfolio”. Prior to 2007, the Willow Fund bought CDS contracts with total notional values that varied over time but were less than the value of its portfolio of distressed

³ We oversimplify CDS valuation to illustrate a point. Those interested in learning more should start with Darrell Duffie, “Credit Swap Valuation” *Financial Analysts Journal* January/February 1999 pp. 73-87.

securities. The CDS contracts that the Fund bought did not reference the Fund's its distressed securities but would still likely have had gains if the Fund's portfolio of distressed securities suffered losses. Thus, the Willow Fund's pre-2007 use of CDS may have hedged a portion of the credit risk in its portfolio of distressed obligations.

Figure 2 is an excerpt from the September 30, 2007 N-Q which provides an example of the Willow Fund's use of CDS to hedge.⁴ The Fund had \$465 million of net assets, roughly \$275 million of that in distressed obligations. By purchasing CDS contracts with \$125 million in aggregate notional value, the Fund partially hedged or cancelled the credit risk in \$125 million of its distressed debt portfolio.

Figure 2 Willow Fund September 30, 2007 Credit Default Swaps

CREDIT SWAPS							
<TABLE>							
<CAUTION>							
SWAP COUNTERPARTY & REFERENCED OBLIGATION	INTEREST RATE	MATURITY DATE	NOTIONAL AMOUNT	UNREALIZED GAIN	UNREALIZED LOSS	% OF NET ASSETS	
BUY CONTRACTS							
BEAL STEARNS							
<S>							
Equipax, Inc., 6.90%, 07/01/28	0.70	10/10/07	10,000,000	\$ -	\$ (2,298)	(0.00%)	
JF MORGAN The Sherwin-Williams Co., 7.375%, 01/01/27	0.67	03/20/11	10,000,000	-	(159,982)	(0.03%)	
MERRILL LYNCH							
Avnet, Inc., 8.00%, 11/15/06	5.15	10/02/07	5,000,000	-	(2,769)	(0.00%)	
CDX HY8	2.75	12/20/07	75,000,000	-	(2,008,188)	(0.43%)	
CVS Corp., 5.63%, 03/15/06	1.15	10/09/07	5,000,000	-	(1,645)	(0.00%)	
National Rural Utilities Cooperative Finance Corp., 5.75%, 11/01/08	2.00	10/03/07	5,000,000	-	(1,233)	(0.00%)	
Textron, Inc., 6.38%, 11/15/08	1.48	10/10/07	5,000,000	-	(2,349)	(0.00%)	
Tyson Foods Inc., 8.25% 10/01/2011	1.20	03/20/11	10,000,000	-	(210,566)	(0.05%)	
				\$ -	\$ (2,989,230)	(0.51%)	

The CDX HY8 entry in Figure 2 warrants a little more discussion. CDX HY is a series of indexes of CDS on high yield corporate debt.⁵ The CDX HY8 CDS was purchased in the third quarter of 2007. The December 20, 2007 entry in the "Maturity Date" field in the Fund's September 30, 2007 N-Q is incorrect. Subsequent filings correctly list the date as June 20, 2012. The Fund agreed to pay an annual CDS premium of 2.75% on \$75 million, or \$2.0625 million per year.

The Fund also paid an upfront fee of approximately \$3.3 million when buying this contract because the at-market CDX HY8 had increased substantially from 2.75% between when the CDX HY8 series was first published in March 2007 and when the Fund bought the CDX HY8 in the third quarter of 2007. This \$3.3 million, reported on the Fund's SEC filings as upfront fees, was the current mark-to-market value of the swap with an off-market premium of 2.75% when the Fund purchased it. This is equivalent to prepaying the additional premium above the 2.75% specified by Markit for this series for the remaining term of the five-year swap.

⁴ www.sec.gov/Archives/edgar/data/1106258/000093506907002838/0000935069-07-002838-index.htm

⁵ CDX HY 8 was the eighth in the series of high yield CDS indices. The "November 2008 Markit Credit Indices, A Primer" can be downloaded here www.markit.com/news/Credit%20Indices%20Primer.pdf. CDX HY 8 first calculated and reported by Markit in March 2007. A Markit fact sheet lists the 100 equally weighted high yield reference obligations underlying CDX HY 8 can be downloaded here www.markit.com/news/CDX.NA.HY.8.pdf.

The Fund's subsequent filings show it also purchased the CDX HY9 and HY10 series in 2008 but had sold all the CDX series by December 31, 2008. The Fund paid between \$33 million and \$37 million in upfront fees on CDX purchases, some of which should be included in our estimate of the CDS premiums the Fund paid on corporate CDS.

ii. Using CDS to Invest

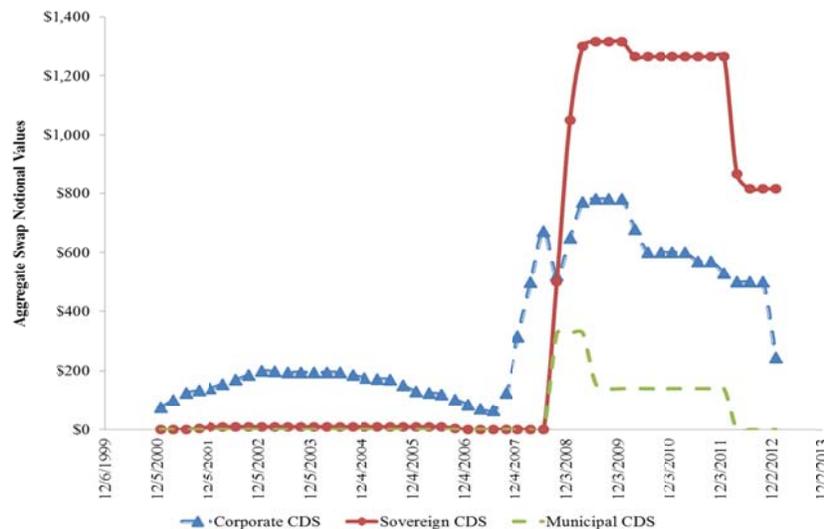
The Willow Fund also said that it could use CDS "... for non-hedging purposes to pursue the Fund's investment objective." By selling CDS and purchasing low risk collateral equal to the notional value of the CDS on distressed sold, the Willow Fund could have created a synthetic long position in the distressed debt referenced in the CDS. The Willow Fund was always a buyer, never a seller, though of CDS and so the Fund did not use CDS to implement its investment objective.

iii. Using CDS to Speculate and to Leverage

As a buyer of CDS contracts, the Willow Fund was shorting credit risk. That is, it was betting that the credit risk of the issuers its CDS referenced would worsen. Initially the Fund was selling short less credit risk than it had in its portfolio of distressed securities and so could be said to be hedging. At least by December 31, 2007 though Willow Fund was selling short far more credit risk through its CDS portfolio than it was exposed to in its securities holdings. From 2008 onward the Willow Fund was using the CDS contracts not to hedge or to implement its investment objective but to speculatively short distress debt with extraordinary leverage.

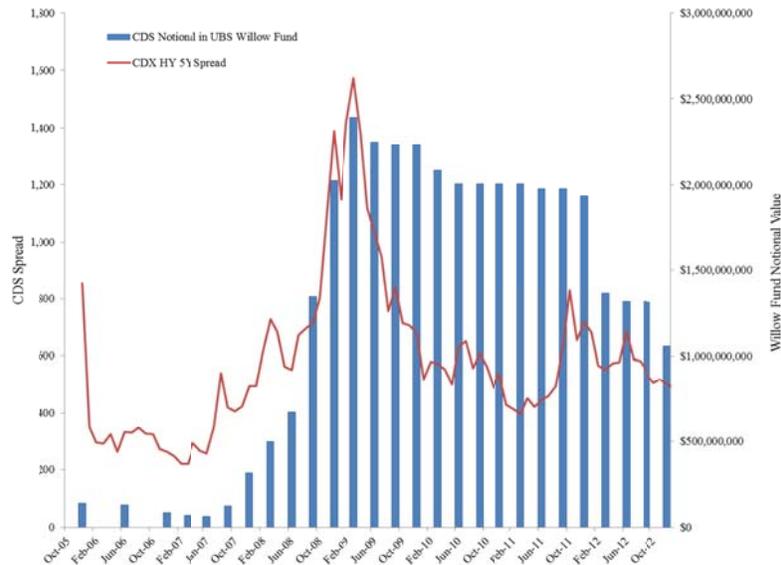
The Willow Fund had been buying CDS contracts on corporate bonds from the its inception and had held a CDS on \$10 million of Korean sovereign debt from 2001 to 2006. It started buying large quantities of CDS on sovereign debt and corporate bonds when it placed its dramatic bet that credit risk would worsen in 2008. See Figure 3.

Figure 3 Willow Fund Corporate, Sovereign and Municipal CDS



The Fund chose a particularly bad time to deviate from its disclosed investment strategy. The solid bars in Figure 4 illustrate the Fund's CDS aggregate notional values over time. The line traces the current at-market five-year CDS premium on high yield debt. The Fund increased its distressed debt short exposure from \$500 million to \$2.4 billion when the high yield five-year CDS premiums were between 800 and 1500 basis points (1 basis point = 0.01%). The Fund kept most of this exposure as high yield CDS premiums fell back below 500 basis points and was thus short \$2 billion of distressed debt as distressed debt prices increased. Since the Fund was by then shorting rather than investing in distressed debt, it suffered large losses.

Figure 4 Willow Fund Leveraged Its Bets Against Distressed Debt as CDS Rates Fell.



III. Willow Funds Losses by Stocks, Bonds, Loans and CDS

i. Stocks, Bonds and Loans versus CDS

In addition to losses on its CDS, the Willow Fund suffered substantial losses on its portfolio of distressed corporate stocks, bonds and loans. The relative importance of losses on CDS versus losses on stocks, bonds and loans is not readily apparent from the SEC filings because the bonds and loans received coupon interest while the Fund paid out over \$135 million in premiums on its CDS contracts. Similarly, the relative significance of CDS on corporate bonds versus CDS on sovereign debt is obscured by the differences in CDS premium the Willow Fund paid across the different types of reference obligations.

Table 1 reports the capital losses suffered by the Willow Fund on CDS contracts and on all other investments – mostly corporate stock, bonds and loans - estimated from the fund's quarterly holdings reported on SEC filings from 2007 to 2012.⁶

Table 1 Willow Fund Losses on CDS Contracts and Other Investments, 2007-2012

	2007	2008	2009	2010	2011	2012	2007-2012
Capital Gains and Losses							
Swaps	\$2,383,580	\$42,414,376	-\$88,676,210	\$56,295,516	\$38,705,423	-\$31,324,051	\$19,798,634
Other Investments	-\$39,360,398	-\$105,603,520	\$39,042,779	\$15,688,739	\$4,041,344	-\$27,361,288	-\$113,552,344
Total	-\$36,976,818	-\$63,189,144	-\$49,633,431	\$71,984,255	\$42,746,767	-\$58,685,339	-\$93,753,710
Interest, Dividends and Premium							
Swaps	-\$2,262,016	-\$15,259,690	-\$27,599,150	-\$36,687,338	-\$31,969,747	-\$21,892,919	-\$135,670,860
Other Investments	\$3,938,722	\$11,360,084	\$3,793,117	\$70,967	\$39,965	\$9,748	\$19,212,603
Total	\$1,676,706	-\$3,899,606	-\$23,806,033	-\$36,616,371	-\$31,929,782	-\$21,883,171	-\$116,458,257
Profit or Loss							
Swaps	\$121,564	\$27,154,686	-\$116,275,360	\$19,608,178	\$6,735,676	-\$53,216,970	-\$115,872,226
Other Investments	-\$35,421,676	-\$94,243,436	\$42,835,896	\$15,759,706	\$4,081,309	-\$27,351,540	-\$94,339,741
Total	-\$35,300,112	-\$67,088,750	-\$73,439,464	\$35,367,884	\$10,816,985	-\$80,568,510	-\$210,211,967

We estimate that CDS market value gains of \$19.8 million partially offset \$113.5 million in losses on other investments. Looking only at the changes in market values it would appear that the CDS contracts were profitable and that common stock and corporate bonds and loans were responsible for all of the losses from 2007 to 2012. This conclusion would be wrong for two reasons.

First, the change in the market value of the CDS contracts reflects in part the Willow Fund's payment of a substantial amount of the CDS premiums it was committed to pay during the term of the CDS contracts as they matured. In addition, and related, the Willow Fund received \$19 million in interest and dividends on the common stock and corporate bonds and loans and paid out at least \$135.7 million in premiums on the CDS contracts. Thus, properly reckoned, the CDS accounted for \$115.9 million or 55% of the \$210 million in losses the Fund suffered from 2007 to 2012. Everything else in this distressed fund accounted for only \$94.3 million or 45% of the losses.

ii. Sovereign versus Corporate CDS

A similar phenomenon obscures the relative significance of CDS on corporate debt versus CDS on sovereign debt. If we only look at capital losses in 2012 it appears that two thirds of the CDS losses came from contracts betting against the credit quality of sovereign issuers like France, Germany, Ireland, Mexico, Spain, Sweden and the United Kingdom. This is misleading because the CDS contracts on corporate bonds required much higher annual premiums (at least 2.38% on average) than CDS contracts on

⁶ We estimated the capital gains and losses as the change in the reported market value per unit multiplied by the minimum units held at the beginning or end of the quarter. We estimated the CDS premiums paid as the CDS rate multiplied by the average notional value of each contract at the start and end of each quarter.

sovereign debt (0.82% on average) and CDS contracts on state and municipal bonds (0.36% on average).⁷

The annual CDS premium paid by the Fund on its contracts can be found in a schedule near the end of each annual and semi-annual report. Figure 5 excerpts a portion of the Willow Fund's 2008 Annual Report.⁸ The second column labeled "Interest Rate" is the annual CDS premium the Fund paid on the notional value in the fourth column for the term of the CDS contract. Focusing on the contracts with Goldman Sachs for examples, we see that the Willow Fund paid as little as 0.1% to insure German sovereign debt and as much as 4.05% or 40 times as much to insure Pulte Homes debt.

Figure 5. Partial Listing of Willow Fund's CDS Contracts as of December 31, 2008.

SCHEDULE OF PORTFOLIO INVESTMENTS (CONTINUED)							
DECEMBER 31, 2008							
CREDIT DEFAULT SWAPS							
SWAP COUNTERPARTY & REFERENCED OBLIGATION	INTEREST RATE	MATURITY DATE	NOTIONAL AMOUNT	UPFRONT FEES	FAIR VALUE	% OF NET ASSETS	
BUY CONTRACTS:							
<S>							
BANK OF AMERICA							
Centex Corp., 5.25%, 6/15/15	2.87	12/20/12	\$ 10,000,000	\$ --	\$ 519,187	0.21	
Limited Brands, Inc.	3.70	09/20/13	10,000,000	--	604,194	0.24	
Macy's Inc., 7.45%, 07/15/17	2.98	09/20/13	10,000,000	--	1,384,209	0.55	
Mattel Inc., 7.25%, 7/9/12	0.87	12/20/12	10,000,000	--	572,070	0.23	
National Rural Utilities Corporation 8.00%, 03/01/32	1.85	09/20/13	5,000,000	--	(65,554)	(0.03)	
Toll Brothers Inc., 6.875%, 11/15/12	2.50	12/20/12	5,000,000	--	(53,833)	(0.02)	
GOLDMAN SACHS							
Austria 5.25% 01/04/11	0.84	12/20/18	50,000,000	--	2,097,479	0.83	
Bank of America Corporation, 6.25%, 4/15/12	0.92	06/20/13	20,000,000	--	139,914	0.06	
Countrywide Home Loans 6.0%, 01/21/18	3.50	12/20/13	20,000,000	--	(2,199,976)	(0.88)	
Countrywide Home Loans 6.0%, 01/21/18	2.80	12/20/13	10,000,000	--	(774,985)	(0.31)	
Federal Republic of Germany	0.10	12/20/13	200,000,000	--	3,309,561	1.32	
Federal Republic of Germany 6% 6/10/16	0.13	09/20/18	200,000,000	--	6,431,340	2.56	
French Republic 4.25% 4/25/19	0.16	12/20/13	100,000,000	--	1,769,822	0.70	
French Republic 4.25% 4/25/19	0.39	12/20/13	100,000,000	--	677,936	0.27	
Ireland	0.76	12/20/13	50,000,000	--	2,228,117	0.89	
Kingdom of Sweden 3.875% 12/29/09	0.60	12/20/13	50,000,000	--	1,158,696	0.46	
Loews Corp. 5.25% 03/15/16	1.00	12/20/13	10,000,000	--	(129,673)	(0.05)	
Loews Corp. 5.25% 03/15/16	0.95	12/20/13	65,000,000	--	(689,146)	(0.27)	
Loews Corp. 5.25% 03/15/16	0.98	12/20/13	10,000,000	--	(120,213)	(0.05)	
Loews Corp. 5.25% 03/15/16	1.10	12/20/13	50,000,000	--	(884,875)	(0.35)	
Loews Corp. 5.25% 03/15/16	1.05	12/20/13	20,000,000	--	(306,648)	(0.12)	
Macy's 6.625%, 04/01/11	2.55	03/20/13	10,000,000	--	1,363,706	0.54	
National Rural Utilities Corporation 8.00%, 03/01/32	1.17	12/20/13	10,000,000	--	200,997	0.08	
Pulte Homes 5.25% 1/15/14	4.05	12/20/13	20,000,000	--	(639,601)	(0.25)	
Pulte Homes 5.25% 1/15/14	3.00	12/20/13	10,000,000	--	117,446	0.05	
RadioShack Corp. 7.375% 05/15/11	2.00	12/20/13	10,000,000	--	40,073	0.02	
RadioShack Corp. 7.375% 05/15/11	2.17	12/20/13	10,000,000	--	(35,364)	(0.01)	
RadioShack Corp. 7.375% 05/15/11	1.87	12/20/13	10,000,000	--	97,761	0.04	
Royal Caribbean Cruises Ltd., 6.875% 12/01/13	3.95	03/20/13	10,000,000	--	2,322,938	0.92	
Royal Caribbean Cruises Ltd., 6.875% 12/01/13	3.50	06/20/11	10,000,000	--	2,106,717	0.84	
Southwest 5.25% 10/01/14	2.15	12/20/11	20,000,000	--	1,538,331	0.61	
Southwest 5.25% 10/01/14	2.20	12/20/13	10,000,000	--	374,739	0.39	
Spain 5.5% 7/30/17	1.10	12/20/13	50,000,000	--	(330,321)	(0.13)	
Spain 5.5% 7/30/17	1.08	12/20/13	50,000,000	--	(280,218)	(0.11)	
Spain 5.5% 7/30/17	0.76	12/20/13	50,000,000	--	482,160	0.19	
State of Florida 5% 06/01/2015	0.46	12/20/18	50,000,000	--	4,627,631	1.84	
State of Georgia 3.00% 04/01/27	0.49	12/20/18	50,000,000	--	3,133,471	1.25	
State of Mississippi	0.50	09/20/18	25,000,000	--	1,773,922	0.71	
State of New Jersey 5.25% 7/01/19	0.42	09/20/18	50,000,000	--	5,678,432	2.26	
State of North Carolina 5% 03/01/10	0.21	09/20/18	75,000,000	--	1,944,890	0.77	
State of North Carolina 5% 03/01/10	0.24	09/20/18	25,000,000	--	5,980,365	2.38	
State of Ohio 5% 09/01/2020	0.42	09/20/18	50,000,000	--	5,033,527	2.00	
UKT 4.25% 06/07/32	1.17	12/20/13	50,000,000	--	(169,600)	(0.07)	
UKT 4.25% 06/07/32	1.12	12/20/13	50,000,000	--	(121,159)	(0.05)	
UKT 4.25% 06/07/32	0.55	12/20/13	50,000,000	--	1,291,846	0.51	
Universal Health 7.125% 06/30/16	2.40	12/20/13	10,000,000	--	86,154	0.03	
Universal Health 7.125% 06/30/16	2.70	12/20/13	10,000,000	--	(55,753)	(0.02)	
JP MORGAN							
Countrywide Home Loans 6.0%, 01/21/18	2.10	06/20/13	10,000,000	--	(414,960)	(0.17)	
Limited Brands, Inc.	3.45	12/20/13	10,000,000	--	651,774	0.26	
Macy's 7.43% 07/15/17	3.00	12/20/13	10,000,000	--	1,268,648	0.50	

⁷ The average premium on corporate CDS is higher than 2.38% because we do not include any of the \$33 million to \$36 million in upfront fees the Fund paid on CDX HY contracts in 2007 and 2008. Since these fees effectively buy down the CDS premium from at-market premiums to the premium when the CDS series was first published by Markit, we understate the corporate CDS premium by between 5% and 10%.

⁸ www.sec.gov/Archives/edgar/data/1106258/000093506909000651/g49912willow_ncsr.txt

Table 2 reports our breakdown of capital losses on CDS contracts by corporate, sovereign and municipal debt from 2007 to 2012. The Fund paid \$14.1 million in premiums on its corporate CDS contracts compared to only \$7.8 million on its sovereign CDS contracts in 2012 and \$97.6 million on corporate CDS versus \$38.3 million on sovereign CDS contracts from 2007 to 2012.⁹

Table 2 Losses on Corporate, Sovereign and Municipal CDS, 2007-2012

	2007	2008	2009	2010	2011	2012	2007-2012
Market Value Changes							
Corporate CDS	\$2,372,598	\$21,958,552	-\$63,383,095	\$21,967,614	\$27,948,337	-\$9,558,662	\$1,305,345
Sovereign CDS	\$0	\$0	-\$16,003,176	\$29,949,068	\$13,120,406	-\$21,700,305	\$5,365,993
State CDS	\$0	\$20,260,406	-\$9,220,139	\$5,344,824	-\$421,278	\$0	\$15,963,813
Total	\$2,372,598	\$42,218,958	-\$88,606,410	\$57,261,506	\$40,647,466	-\$31,258,967	\$22,635,151
CDS Premium							
Corporate CDS	-\$2,251,594	-\$14,326,992	-\$19,252,429	-\$25,326,410	-\$22,334,728	-\$14,076,966	-\$97,569,121
Sovereign CDS	\$0	-\$311,736	-\$7,630,972	-\$11,616,872	-\$10,904,808	-\$7,813,192	-\$38,277,579
State CDS	\$0	-\$449,409	-\$785,549	-\$710,046	-\$672,254	-\$67,845	-\$2,685,103
Total	-\$2,251,594	-\$15,088,137	-\$27,668,950	-\$37,653,328	-\$33,911,790	-\$21,958,003	-\$138,531,803
Profit or Loss							
Corporate CDS	\$121,003	\$7,631,560	-\$82,635,524	-\$3,358,796	\$5,613,609	-\$23,635,628	-\$96,263,776
Sovereign CDS	\$0	-\$311,736	-\$23,634,148	\$18,332,196	\$2,215,599	-\$29,513,496	-\$32,911,586
State CDS	\$0	\$19,810,997	-\$10,005,688	\$4,634,778	-\$1,093,531	-\$67,845	\$13,278,710
Total	\$121,003	\$27,130,821	-\$116,275,360	\$19,608,178	\$6,735,676	-\$53,216,970	-\$115,896,652

Including the CDS premiums the Fund paid in 2012, a little less than half of the CDS losses came from contracts betting against corporate debt and a little more than one half of the losses came from betting against sovereign debt. Over the entire 2007-2012 period the Willow Funds' \$96 million in losses from CDS contracts on corporate debt was three times as much as the \$33 million in losses from CDS contracts on sovereign debt. The Willow Fund's 2012 collapse would have occurred whether it was short only high yield corporate credit rather than a mixture of corporate debt and sovereign debt.

IV. The Willow Fund Hid Its Risky Change in Strategy.

i. UBS understated the risks of purchasing CDS contracts

Each annual and semi-annual report contained an identical disclosure of the risks of CDS contracts which read:

Risks may arise as a result of the failure of the counterparty (Protection Seller) to perform under the agreement. The loss incurred by the failure of counterparty is generally limited to the market value and premium amounts recorded. The Fund considers the creditworthiness of each counterparty to a swap agreement in evaluating potential credit risk. Additionally, risks may arise from the unanticipated movements in the interest rates or in the value of the underlying reference securities.

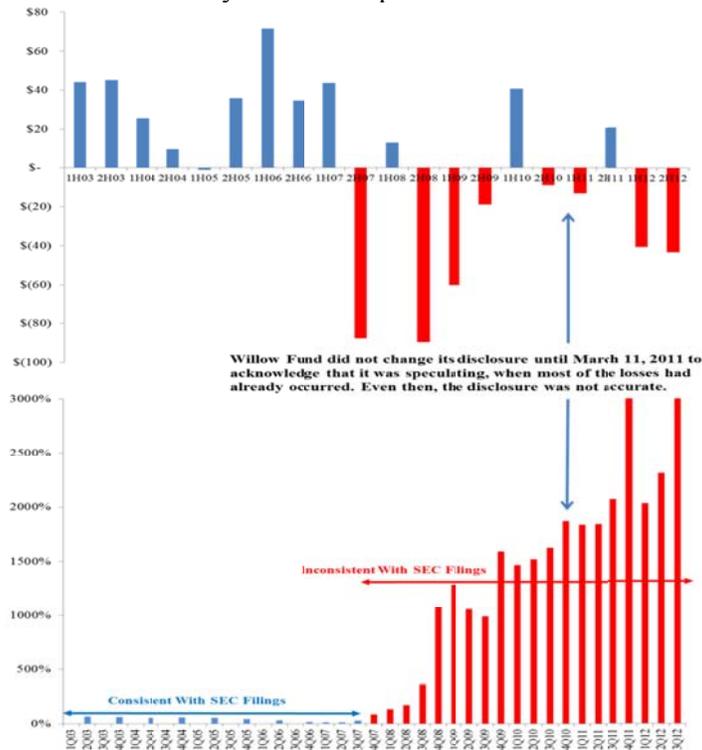
⁹ As with Table 2, we underestimate the premiums paid on corporate CDS because we do not include any of the \$33 to \$36 million of upfront fees the Fund paid in 2007 and 2008 on the CDX HY swaps.

The first three sentences of this paragraph discusses counterparty credit risk – the risk that if and when one of the reference entities defaults - Goldman Sachs or JP Morgan will not make the contingent payment due upon a default to the Willow Fund. Especially for the counterparties UBS dealt with, this risk is truly de minimis. The fourth sentence states that changes in the risk free rate of interest and changes in the value of the reference obligations effect the market value of a CDS contract. In fact, changes in the credit quality of the reference entities is the primary risk in the CDS contracts. It is this risk - the risk that the credit quality of the reference entities would worsen substantially, that the Willow Fund paid over \$120 million to bet on - which vastly dominates all other risks associated with the Fund’s CDS holdings. The Willow Fund’s annual and semi-annual reports do not discuss this primary risk, which it then leveraged up 15 or 20-1.

ii. UBS delayed disclosing the Fund was speculatively trading

The Willow Fund did not disclose the dramatic change in its use of CDS contracts. In the 2010 N-CSR filed with the Securities and Exchange Commission on March 11, 2011 - after the Fund had suffered over \$210 million in losses while speculating with CDS - the Fund stated “... the Fund entered into credit default swaps for speculative purposes as a "protection buyer".” The fifteen previous annual and semi-annual reports said only stated “... the Fund entered into credit default swaps as a "protection buyer”.” 65% of the losses resulting from the Willow Fund’s explosive use of CDS contracts occurred before it hinted in its SEC filings that it was no longer hedging or investing but was speculating with CDS.

Figure 5 Willow Fund Partially Discloses Speculation After \$200 million in Losses.



The upper panel of Figure 5 plots the notional value of the Willow Fund's CDS contracts as percent of the fund's net assets each quarter and the lower panel of Figure 5 plots the funds profits semi-annual profits from 2003 to 2012. Consistent with the Willow Fund's disclosures, in the early years it invested in securities of distressed companies and hedged out some of the credit risk in its portfolios by purchasing credit default swaps. From January 1, 2003 to June 30, 2007 the Willow Fund had \$309,415,927 in profit. From June 30, 2007 to December 31, 2012 while the Willow Fund's portfolio deviated substantially from the Fund's SEC filings, the Fund suffered losses of \$287,576,818.

iii. The Fund Switched From Reporting CDS premiums as expenses to capital losses to obfuscate the impact of its massive CDS portfolio.

Periodic payments made by the protection buyer – the Willow Fund in this case – should be expensed in the period they are paid.¹⁰ Reporting the periodic payments as an expense allows investors to see how much is being paid to bet on the credit of certain issuers; the higher is this CDS expense the greater the risk of variations in credit quality.

Up to and including the June 30, 2007 Semi-Annual Report, the Willow Fund's annual and semi-annual reports correctly list the CDS premiums it paid as an expense item "Interest on credit swaps". The Willow Fund's June 30, 2007 Semi-Annual Report includes the following sentence. "The accrued expense related to the periodic payments is reflected as interest on credit swaps in the Statement of Operations." Starting with the December 31, 2007 Annual Report filed in March 2008, this language was changed to read: "The accrued expense related to the periodic payments on credit default swaps is reflected as realized and unrealized loss in the Statement of Operations."

We report the Fund's "Interest on credit swap" expense for each year and our estimated CDS premiums in Table 3. Our estimates closely track the Willow Fund's line item expense up to the June 30, 2007 Semi-Annual Report after which the Fund stopped reporting this expense item and buried it in the realized and unrealized change in market value of securities.

The Willow Fund's CDS expense skyrocketed after the Fund stopped reporting it as a line item expense. By the time the Willow Fund filed its 2007 Annual Report in March 2008, it was committed to paying between \$15 million and \$25 million in CDS premiums in 2008. The Fund paid well over \$20 million per year on average in CDS premiums from 2008 to 2012. By changing how it reported this item from an expense to a change in the market value of the securities it held or had sold the Willow fund was able to mislead investors.

¹⁰ See Lawrence Lokken, "Taxation of Credit Derivatives," Urban-Brookings Tax Policy Center, November 19, 2009 at page 23: "Under the notional principal contract regulations, a credit protection buyer's periodic payments are recognized as income to the seller and expense of the buyer for periods for which they are made." http://www.taxpolicycenter.org/UploadedPDF/1001350_credit_derivatives.pdf

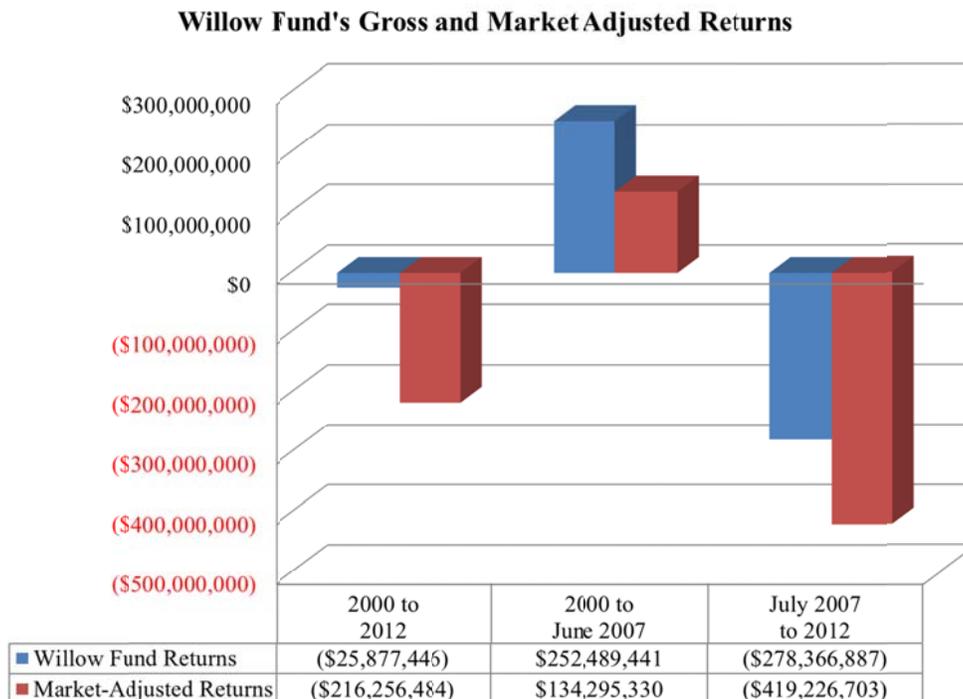
Table 3 UBS stopped reporting CDS premiums as expenses.

Willow Fund's "Interest on credit swap" Expense		
	C-NSR	SLCG Estimate
2004	\$2,320,898	\$2,259,000
2005	\$2,007,607	\$1,934,375
2006	\$1,632,989	\$1,572,875
1H07	\$539,662	\$539,813
2007		\$2,320,313
2008		\$15,652,960
2009		\$27,858,750
2010		\$26,146,375
2011		\$24,846,250
2012		\$20,025,563

V. The Willow Fund Investors' Losses Were UBS's Gains

i. Investors lost between \$278.4 million and \$419.2 million as a result of the Willow Fund's undisclosed change in investment strategy

Investors in the Willow Fund lost \$25.9 million from inception to December 31, 2012. The same investor capital deposits and withdrawals in a diversified portfolio of high yield bonds would have had a \$190.4 million gain and so Willow Fund investors as a whole lost \$216.3 million over the active life of the Fund. See Figure 6.

Figure 6 Fund Returns, Market Returns and Market Adjusted Returns

The Willow Fund was really two very different funds. From inception to June 2007 the Fund invested in distressed obligations and hedged some of its credit risk exposure by purchasing CDS contracts. During this period, investors had a gain of \$252.5 million. This gain was \$134.3 million more than the \$118.2 million the same investor capital flows would have earned in a diversified, non-leveraged portfolio of junk bonds.

After July 1, 2007, the Willow Fund was completely different than its previous self and completely different than what its SEC disclosures described. The Fund was a high-cost, massive short bet on credit risk. The Fund lost \$278.4 million from July 1, 2007 to December 31, 2012. Approximately half of these losses were the CDS premiums it paid but stopped reporting separately in its SEC filings after June 30, 2007.

If the Willow Fund investors' capital values on June 30, 2007 had been invested in a diversified portfolio of junk bonds, they would have earned \$140.9 million up through December 31, 2012. Willow Fund investors thus lost \$419.2 million compared to the high yield bond market after the Fund changed its strategy (and its accounting treatment of CDS premiums).¹¹

ii. UBS Made over \$100 million selling and managing the Willow Fund

UBS made over \$100 million managing and selling the Willow Fund. UBSFA received a management fee of 1.25% of the net assets of the fund annually which added up to \$41.2 million. UBS also received an incentive fee equal to 20% of the Fund's profits above a high watermark. The incentive fees totaling \$54.3 million were added to UBSFA's Managing Member capital but were virtually completely withdrawn prior to the Fund's losses and so were not at risk with the Fund's investor's capital. UBS also received up to a 2% placement fee for acting as the Placement Agent for the Fund.

Table 4 Compensation Paid by the Willow Fund to UBS, excluding placement fees.

Year	Management Fee	Incentive Fee	Total
2000	\$88,099	\$0	\$88,099
2001	\$1,959,893	\$0	\$1,959,893
2002	\$3,343,456	\$2,903,403	\$6,246,859
2003	\$3,812,121	\$15,018,067	\$18,830,188
2004	\$4,578,946	\$7,452,335	\$12,031,281
2005	\$4,146,734	\$6,936,901	\$11,083,635
2006	\$5,142,331	\$19,992,799	\$25,135,130

¹¹ If instead of investing the members' capital accounts on June 30, 2007 in the diversified portfolio we just allow the alternative portfolio of junk bonds to continue from that date until December 31, 2012 the estimated market adjusted damages during the second period would be \$350.6 million rather than \$419.2 million.

2007	\$5,989,170	\$1,785,558	\$7,774,728
2008	\$5,044,927	\$0	\$5,044,927
2009	\$2,591,896	\$0	\$2,591,896
2010	\$1,484,097	\$156,920	\$1,641,017
2011	\$1,364,108	\$62,759	\$1,426,867
2012	\$1,751,928	-\$11,821	\$1,740,107
	\$41,297,706	\$54,296,921	\$95,594,627

VI. Conclusion

Until June 30, 2007, the Willow Fund was invested in distressed obligations with offsetting but smaller short debt positions and synthetic short debt positions through its purchase of credit default swaps (CDS). During this first time period the Fund's investors made \$252 million.

After June 2007 the Fund dramatically increased its purchases of CDS and became massively selling distressed debt short. At its peak, the notional value of the CDS the Fund purchased was more than 20 times as large as its long portfolio of distressed obligations. Investors in the Fund lost \$278 million during this second period from June 2007 to December 2012 and the Fund was liquidated in 2013.

The Willow Fund understated the risk of its CDS portfolio, did not disclose the change in its investment strategy in 2008 which dramatically increased the Fund's risks, and changed how it accounted for the CDs premiums it paid from being a line item expense to being bundled up with realized and unrealized gains on losses on its overall securities and derivatives portfolio making it nearly impossible for investors to discern the impact of the Fund's change in strategy and dramatic increase in risk.

UBS made over \$100 million selling and managing the Willow Fund. UBSFA was paid \$41 million in management fees and \$55 million in incentive fees and UBS charged investors a placement fee of up to 2%.