# ZXBondSwap

## ZERO-IN ON OPTIMAL INVESTMENT AND FUNDING DECISIONS

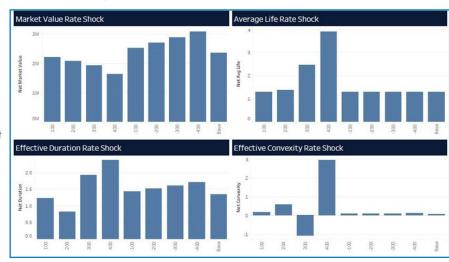
### HARNESS THE POWER OF BLOOMBERG AND EXCEL to assess the impact of strategies on your institution's income and risk profile.

ZXBondSwap™ from ZM Financial Systems (ZMFS) is an easy-to-use yet powerful analytical tool for analyzing security trades and loan funding/leverage decisions. ZXBondSwap connects directly into your existing Bloomberg data¹, allowing you to load and refresh both market data and securities attributes instantly. You can utilize ZXBondSwap to:

- Analyze securities and portfolios from both value and income perspectives
- Load market and securities details instantly using our Bloomberg linkages
- Calculate a wide variety of value and risk measures to assess purchase and sell decisions
- Analyze almost any type of loan structure against a wide combination of funding vehicles



Create risk management reports and generate investment ideas. With ZXBondSwap, reporting is easy! All outputs are exported directly to Microsoft



Excel or in PDF form. Reports include both summary and detailed information – giving you an easy way to review, send and share information with others. Custom reports can also be designed using Tableau, delivering very polished reporting packages that can be generated in seconds. Reports include, but are not limited to:

- BondSwap Output
  - -Market and accrued gain or loss
  - -Impact on OAS
  - -Impact on book and market yield
  - -Impact on duration and convexity
  - -Income and balance projection by security
- -Yield projection by security
- -Cash flow projection by security
- -Horizon market value by security
- -Break-even analysis
- -Total return analysis

		Bond Swap Report															
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Net - Summa	nry																
	Market Value	Accrued	Total		OAS	MktYld	BookYld	YTWBKTE	Dur	Cnvx			Net Income After Tax			Г	
Buys	25,017,410	36,592	25,054,002		40.8	2.47	3.51	0.00	4.88	0.02		Scenario	Year 1	Total	%Chg	Breakeven(mos)	1
Sells	24,581,778	16,321	24,598,099		30.0	2.64	2.65	0.00	6.04	0.39		-100+0	175,255	175,255	0.00%	2	1
Net Dollars	435,632	20,271	455,903		10.8	(0.16)	0.86	0.00	(1.16)	(0.37)		Base	175,255	175,255	0.00%	2	
												100+0	175,255	175,255	0.00%	2	
Buy																	
CUSIP	ID	OrigPar	Factor	CPar	Settle	OAS	MktYld	BookYld	YTWBkTE	WAL	Dur	Cnvx	Book Price	Book Val	Mkt Price	Mkt Val	Т
048352EQ7	048352EQ7	500,000	1	500,000	05/31/2012	134.4	4.23	4.10		12.32	8.76	(0.92)	100.00	500,000	98.79	493,935	
194304A IO	194304A IO	755 000	1	755,000	05/31/2012	343.2	6.23	7.00		11.62	6.13	(4.42)	100.00	755 000	106 30	802 554	

- Risk Management Output
  - -Market vs. Book Gain or Loss
  - -Price and value shocks/stresses
  - -OAS and options cost
  - -Average life, duration
  - -Effective Duration / convexity
  - Modified duration and prepay stresses
  - -Market Value change in scenarios

- -Forward market change in scenarios
- -Earnings change in scenarios
- -Other assumption stress tests
- -Sector analysis
- -Repricing sensitivity
- -Cash flow sensitivity

- 4	A	В	С	D	E	F	G	Н			
6		EV Sensitivity - Securities									
7	101	-100+0	Base	100+0	200+0	300+0					
8	EV Securities (Include HTM)	189,529	184,893	181,802	179,643	176,889					
9	Less: Unrealized G/L on HTM	-	-	-	-	-					
10	Securities (Book Value)	189,529	184,893	181,802	179,643	176,889					
11	Unrealized G/L on AFS	1,148	(3,489)	(6,580)	(8,738)	(11,492)					
12					1000000	the state of the					
13	EV Sensitivity	2.5%	2	(1.7%)	(2.8%)	(4.3%)					
14	Average Life (years)	10.49	10.74	10.74	10.74	10.74					
15	Effective Duration	2.749	2.116	1.231	1.263	1.915					
16	Effective Convexity	(0.400)	(0.208)	0.537	(0.515)	(1.342)					
17											
18		Market Risk Snapshot - Securities (Base)									
19		Economic	Unrealized	AvgLife	<b>Book Yield</b>	Effective	Effective	Effective			
20	Sector	Value	Gain/Loss	(Years)	(%)	Duration	Convexity	PV01 (in \$)			
21	Agency Notes/Bonds - FR	32,684	(4,599)	1.77	1.57	1.287	(7.842)	4,231			
22	CMOs - Fixed Rate	21,803	622	3.14	4.16	2.903	0.126	6,352			
23	CMOs - Variable Rate	130,405	489	14.55	2.33	2.193	1.661	28,603			
24	Total	184,893	(3,489)	10.74	2.39	2.116	(0.208)	39,186			
25			100000								
26		Repricing/Maturity Profile - Securities									
27		Re	pricing (Notic		Maturity (Notional)						
28				Cumulative			Cumulative				
29	Base Scenario	Amount	% Total	% Total	Amount	% Total	% Total	% AFS			
30	Within 1 Year	143,545	78.5%	78.5%	16,683	9.1%	9.1%	100.0%			
31	After 1 Yr/Within 2 Yrs	8,903	4.9%	83.4%	12,000	6.6%	15.7%	100.0%			
32	After 2 Yr/Within 3 Yrs	10,914	6.0%	89.3%	14,161	7.7%	23.4%	100.0%			
33	After 3 Yr/Within 5 Yrs	15,826	8.7%	98.0%	22,802	12.5%	35.9%	100.0%			
34	After 5 Yr/Within 10 Yrs	3,702	2.0%	100.0%	24,348	13.3%	49.2%	100.0%			
35	Beyond 10 Years			100.0%	92,897	50.8%	100.0%	100.0%			
36	Total	182,890	100.0%	100.0%	182,890	100.0%	100.0%	100.0%			
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#### Start seeing the impact of strategies and make decisions easier for your financial institutions.

Contact us today to schedule a demonstration or contact us via:

Email: sales@zmfs.com
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#### **About ZM Financial Systems**

ZM Financial Systems brings practical solutions to complex financial problems, offering complete solutions in securities and fixed-income analytics, credit-adjusted ALM, liquidity, risk management, budgeting and funds transfer pricing. We also offer large bank solutions to meet the evolving regulatory risk reporting requirements. With roughly 2,000 institutions depending on ZMFS products/analytics to identify, measure and monitor risk and value in their balance sheets, we are one of the fastest growing financial software companies in the U.S. Founded in 2003, ZMFS is a privately-held corporation headquartered in Cary, N.C. In addition to the 25 percent of our staff who have PhD's in the advanced quantitative field, our development and product support teams all have experience in the finance arena. Because our teams continuously collaborate, we can quickly navigate complex solutions to complete client-requested enhancements in days or weeks, versus months or years. Delivering state-of-the-art risk/reward analysis tools, such as ZMdesk, OnlineALM.com<sup>TM</sup>, OnlineBudgeting. zmfs.com<sup>TM</sup> and ZXBondSwap<sup>TM</sup>, our clients are empowered to uncover hidden risk while maximizing performance; test lending, investment and funding strategies; and respond to various regulatory requirements while efficiently delivering actionable information.

