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For more information please visit [www.interactivedata-fia.com](http://www.interactivedata-fia.com) or call (310) 479-9715.

### Letter from Keith Webster, Managing Director, Interactive Data Fixed Income Analytics

It is my pleasure to share with you Interactive Data's latest edition of the *On The Edge* newsletter, which is one of the many ways that we want to stay connected to customers and others in the industry. The objective of this newsletter is to provide you with our perspective on the fixed income markets, as well as detail on product enhancements and informational resources that can help you to work more effectively with BondEdge.

Since the beginning of this year, Interactive Data has sponsored customer breakfast meetings in San Francisco, Chicago, Boston, and New York. I have truly enjoyed meeting with many of you one-on-one as I work to understand your business focus and the challenges that you face. It has given me a better sense of the role that we can play in providing greater insight into your fixed income portfolio analysis and research efforts.

As we have for many years, Interactive Data's BondEdge team will host a world class customer event, which will be held this year in Washington, D.C. on September 22 and 23, 2009. We will bring together industry experts on the economy and fixed income markets with our team of analytic software and information professionals to share with you new product developments designed to address your needs in the current environment. Additional details are included in this newsletter, and we hope that each of you can join us for this very special event.

As always, we look forward to serving you as a trusted provider of fixed income analytic solutions that can help support your investment decisions and risk management processes.

Best regards,

Keith Webster

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## Save the Date! 2009 BondEdge Fixed Income Summit



Please plan on joining us in Washington D.C. for the 2009 BondEdge® Fixed Income Summit hosted by Interactive Data.

Event: **BondEdge Fixed Income Summit**  
Date: **September 22-23, 2009**  
Location: **Willard Intercontinental Washington  
Washington, D.C.**

This two-day event will feature presentations from leading experts in the financial industry who will provide insight into the current economic environment, risk management and regulatory issues. We will host client panels to discuss these and other key issues. We will explore ways to use BondEdge to help address real-world fixed income challenges.

Topics to be explored during the event will include:

- Regulatory and Market Environment Developments
- Fixed Income Portfolio Risk and Compliance
- Stress Testing Techniques
- Fixed Income Performance Attribution
- Applying Advanced Technology: Cloud Computing
- Dynamic Asset Cash Flow Analysis
- Analytic Modeling

Keep checking the [events page](#) on our website for further updates. We look forward to seeing you in Washington D.C. in September.

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## **Now Available: BondEdge Platform Designed for Fixed Income Strategists**

Earlier this year, Interactive Data introduced BondEdge® Fixed Income Strategist, a new package of capabilities designed for the analytical risk reporting and trade analysis needs of fixed income strategists focused on serving institutional investors.

This offering is designed to help you gain insights into client portfolios, identify new trading opportunities, analyze risk characteristics of the portfolios and seamlessly share consistent information with groups across the enterprise. BondEdge Fixed Income Strategist is available via the BondEdge Next Generation Platform, which is built on the Microsoft® .NET Framework and provides a highly flexible user interface.

Interactive Data recently hosted a web seminar on the BondEdge Fixed Income Strategist offering. Please click [here](#) to access the web seminar replay and other materials and [here](#) to access additional product information for BondEdge Fixed Income Strategist.

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## **U.S. City and State Government Agencies Look to Interactive Data to Support Investment Risk Management Processes**

A growing number of government agencies have been utilizing Interactive Data's BondEdge® service for processing credit risk and as part of their due diligence processes. These organizations include the City of

Los Angeles and the San Francisco Employees Retirement System (SFERS), as well as additional city and county public employee retirement systems, state investment councils, state and county treasuries, teachers retirement systems and permanent school funds.

Interactive Data can help these organizations conduct due diligence processes and respond to reporting requirements such as GASB 40: Deposit and Investment Risk Disclosures. Our services can also assist government entities in monitoring funds that are managed by external investment firms.

"In the past, state and government agencies tended to look toward ratings firms for 'peace of mind' in assessing credit risk with respect to their portfolios," said Keith Webster, managing director, Interactive Data Fixed Income Analytics. "In today's market environment, these organizations recognize the need to supplement those activities by working with independent providers of fixed income analytics whose services can assist with due diligence, including determining exposure to credit, probability of default, and the number of callable securities in their investment portfolios. Interactive Data is committed to providing tools to these agencies to help support their risk management activities."

***Please [click here to read additional details in the press release](#).*** If you are a government organization and are interested in discussing how BondEdge can support your investment risk processes, please contact Jeffrey Foley at (310) 479-9715.

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## Fixed Rate Mortgage Highlights

Recent economic data suggested that the recession is near the bottom, or may have touched the bottom, with recovery signs emerging. US home prices kept dropping but with a slowing pace and US consumer confidence surged in May.

The Treasury curve continued steepening in May. The 10-year rate rose by 31 bps to 3.84% on May month end while the 6-month rate inched up by 1 bps to 0.29%. The 30-year and 15-year mortgage rates went up by 31 bps and 14bps, respectively. The Option Adjusted Spread (OAS) remained somewhat stable, whereas the Option Adjusted Duration (OAD) further extended by 0.94 to 2.59 to end the month.

Fixed rate mortgages performed fairly in May, with a total return of 25 bps. The income contributed a return of 45 bps, dragged down by mortgage paydown and price change. The price effect was largely attributable to the yield curve movement.

The above is the market commentary from this month's MBS Report, with clear and timely summary results (for May month-end) from the BondEdge Fixed Rate MBS Prepayment Model.

***To receive copies of the MBS and Hybrid ARM reports for May month-end please contact us at [fia-info@interactivedata.com](mailto:fia-info@interactivedata.com).***

If you are a BondEdge client, these reports are also available on the BondEdge Private Client Site.

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## Static Cash Flow vs. Dynamic Cash Flow for Mortgage Backed Securities

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Senior Vice President, Director of Quantitative Research

Christina Oberlin, Ph.D.  
Senior Quantitative Analyst

The Static Cash Flow Calendar, accessible in BondEdge® from the Security Calculator, forecasts cash flows for a mortgage backed security (MBS) by using the lifetime prepayment speed as a constant CPR (or PSA). The BondEdge lifetime prepayment speed is the single annualized prepayment speed that results in the same average life as the vector of monthly prepayment rates generated by the BondEdge prepayment

model assuming no change in mortgage rates during the analysis.<sup>1</sup>

For each month of the Static Cash Flow Calendar, the prepayment speed is held constant at the single monthly mortality rate (SMM) corresponding to the BondEdge lifetime prepayment speed. Thus, while the prepayment model is used to calculate the lifetime prepayment speed, it is not used to calculate the cash flows for the Static Cash Flow Calendar. The resulting static cash flow stream provides a widely accepted benchmark for the generation of the cash flows used in the price-yield relationship, as well as for certain risk measurements such as average life and modified duration.

However, the static cash flow stream is not meant to provide an accurate representation of expected cash flow amounts. The Dynamic Asset Cash Flow, which can be found under Additional Systems—Cash Flow Testing, forecasts portfolio cash flows under user specified interest rate scenarios and makes use of monthly short-term prepayment projections from the BondEdge prepayment model. For expected cash flows it is more appropriate to use the Dynamic Asset Cash Flow.

In particular, the BondEdge prepayment model is used each month of the scenario to determine a new SMM. Inputs to the prepayment model consist of intransient collateral properties including issuer, loan term, gross weighted average coupon (GWAC), and spread at origination (SATO), as well as transient properties such as the interest rate environment, loan age, and the time of the year.

The GWAC in combination with the interest rate environment determines the amount of interest savings borrowers can achieve through refinancing, while the loan age and time of year determine the seasoning and seasonality, respectively.<sup>2</sup> The resulting prepayment speed is used in conjunction with the amortization schedule to age the collateral and generate the cash flow.

This now highlights the most important difference between Static and Dynamic Cash Flows—in Static Cash Flows, the SMM vector is flat, however in Dynamic Asset Cash Flow, the SMM vector is a curve that reflects the state of the mortgage and the interest rate environment.

In addition, Dynamic Asset Cash Flow allows users to consider the potential cash flow profile of their mortgage holdings under non-level interest rate scenarios. This is done by entering either future interest rate values (i.e. absolute rates) or future interest rate shifts (i.e. basis point shifts). In either case, the interest rate shift due to scenario values is calculated monthly. This rate shift is added to interest rate projections, and the sum is passed to the prepayment model. The rate shift is also added to the initial internal rate of return. Future cash flows are discounted by the resulting shifted rate of return to arrive at the current simulated value.

Cash flow based measures such as simulated value, modified duration, book value, and book yield may be affected by future interest rate shifts, unlike prepayment speeds and the cash flows themselves. Independence from future interest rate shifts can be achieved by setting the FAS 91 trigger found under Cash Flow Testing Default Settings. Future cash flows will be recalculated every time the interest rate shift is greater than the FAS 91 trigger threshold. This will increase processing time and will affect only the cash flow based measures, not the projected cash flows.

In addition to the FAS 91 option, the Dynamic Asset Cash Flow Default Settings include an option to control the number of months over which the short term prepayment projection will be calculated (i.e. the outlook) and a lag which reflects the number of months required to respond to an interest rate shift. The outlook is twelve by default, but may be reduced to one or three months. Setting the outlook to twelve has the effect of disabling the seasonality effect. The lag has a default value of zero months, but may be increased to one or two months to delay the effect of rate shifts on prepayment speeds.

Please contact your consultant or the Client Services Group at [clientservices@interactivedata.com](mailto:clientservices@interactivedata.com) or (800) 228-9715 if you have any questions.

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<sup>1</sup> For whole loan CMOs and home equity loans (HEL), the lifetime prepayment speed has been replaced as of Version 5.60 by the speed that results in the actual decrease of collateral balance observed over the past six months.

<sup>2</sup> Seasoning or aging describes the way in which borrowers who have been in their homes for some time begin to prepay their loans. This is the same phenomenon that SIFMA was trying to account for with the development of the PSA prepayment convention in which it takes 30 months for a mortgage to fully season. Seasonality reflects the fact that prepayments tend to rise in the summer months and decline in the winter. This is due to the tendency of parents to not relocate in the winter months when children are in school.

## BondEdge Next Generation – Update

We are pleased to report that we have been very active in migrating our client-base to BondEdge Next Generation, our latest analytical platform which is built on the Microsoft® .NET Framework. BondEdge Next Generation, initially released in late 2008, leverages our history of fixed income portfolio analytic innovation and reflects feedback received from our fixed income clients.

BondEdge Next Generation provides an intuitive user interface for quick and easy navigation, a centralized reporting engine that enhances our standard and customized client reports capabilities, and an innovative technology framework that enables more expedited development of reporting enhancements.

In late February, we announced the addition of an API (application program interface) to BondEdge Next Generation Version 2.1. The BondEdge API is designed to provide clients with seamless access to our fixed income security analytics, bond swap, and "what-if" capabilities from directly within Microsoft Excel® and other third party applications. The BondEdge API for Excel includes an add-in program with pre-formatted sample templates. Key rate durations were added to Version 2.2 of the BondEdge API, released at the end of May.

These API capabilities come bundled with the general features of BondEdge Next Generation. This API functionality and the increased accessibility to BondEdge analytics have generated significant interest from our existing clients and provides added incentive in converting to BondEdge Next Generation from our legacy platform.

From a portfolio versus index comparison perspective, BondEdge Next Generation provides our total return clients with enhanced reporting flexibility and more granular analysis, allowing clients to build customized and detailed benchmark comparison reports and providing widespread index constituent drill down facilities for constituent-based benchmarks.

Later this summer, BondEdge Next Generation Version 3.0 is scheduled to be released. The customized reporting flexibility of our modern platform will be extended to include our Dynamic Asset Cash Flow Analysis. This will provide those within the insurance and depository institution market segment with significant added functionality when creating presentation style reports and customized cash flow analysis.

A recording of the recent web seminar we hosted on the new BondEdge API is available by clicking [here](#). We will be hosting additional web seminars on BondEdge Next Generation during the remainder of 2009. Upcoming sessions will include a comprehensive overview of our latest analytical platform, as well as events that focus on specific market segments such as asset managers or insurance companies. Information on our upcoming web seminars will be posted on our website ([www.interactivedata-fia.com](http://www.interactivedata-fia.com)) and on the BondEdge Private Client Site.

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## BondEdge Prepayment Model Parameter Update – May 2009

Since the end of April 2009, mortgage rates have risen sharply. As Table 1 shows below, the 30-year mortgage rate has surged 52 bps, which in turn has caused the Treasury option-adjusted duration (TOAD) to lengthen by about 0.96 – without any change in the BondEdge Prepayment Model.

Table 1  
Fixed Rate Mortgage Index Risk Measures

Date	Price	TOAD	TOAC	30Y Mrate
04/30/09	104.01	1.87	-1.64	4.51
05/27/09	103.30	2.82	-2.11	5.03
Difference	-0.70	0.96	-0.47	0.52

On May 29, 2009, there was an additional lengthening of duration due to an upgrade of the parameters in the BondEdge Prepayment Model. These parameters were updated to better reflect the behaviour of borrowers during the unfolding credit crisis that began during 2008.

This item is a partial reprint of the BondEdge Prepayment Model Parameter Update available to BondEdge clients on our Private Client Site. **To view this update in its entirety, please [click here](#).**

## Client Services Q & A

**Q.** How is market yield calculated in the Dynamic Asset Cash Flow module?

**A.** Let's first tackle this question for a single Corporate (or non-securitized Agency) bond. The answer depends on your Agency and Corporate Price Calculation setting under Cash Flow Testing Preferences. If you have selected Constant OAS, the security's initial OAS is added to the interest rate shift specified by the scenario for a given cash flow date and the sum is layered onto the initial Treasury curve. The projected cash flows are then discounted using these adjusted rates to arrive at the simulated value. The internal rate of return that corresponds to this price is the market yield. If you have selected Nominal Yield, the initial market yield is shifted by the duration-matched change in rates. Please be aware that for Corporates with call or put options that are affected by the cash flow scenario, market yield shifts may become incompatible with the cash flow projections for the Nominal Yield option. If you utilize the market yield and market value fields for bonds with call or put options, we recommend using the Constant OAS option.

For a non-Corporate bond, the market yield is calculated by shifting the internal rate of return by the duration-matched user specified interest rate shift for that date. Market yield shifts differ from scenario interest rate shifts because of duration changes. In an up scenario, if duration extends due to decreased prepayments, the market yield may shift by more than the user specified shift because the Treasury matched interest rate point also increases.

Now for a portfolio of bonds and a particular cash flow date, the portfolio market yield is simply the market value weighted average of the security market yields.

**Q.** How do I use the loss modeling options in the Performance tab of the Security Calculator?

**A.** The credit trigger should be turned on if you are aware that the deal has failed any credit trigger test based on losses and/or delinquencies. If your projections of losses and delinquencies suggest that the deal will be triggered x months from now, then you may want to leave the trigger off but enter a status change of x months. Since this value must be manually decremented in future months, it is easier to simply turn the trigger on.

The default rate can be entered as either a Constant Default Rate (CDR), percentage of the Standardized Default Assumption (SDA), or Monthly Default Rate (MDR). CDR is the most widely used option. It specifies the annualized percentage of the outstanding principal balance that is in default. CDR is to default rates as CPR is to prepayment rates. Similarly, SDA is to default rates as PSA is to prepayment rates. MDR is similar to CDR, but represents a monthly rather than annual default amount.

For Whole Loan CMOs and ABS Home Equity Loans, the BondEdge lifetime prepayment speeds displayed in the Collateral tab of the Security Calculator are calculated by observing the decrease in outstanding balance over the past six months. Since both prepayments and defaults reduce the outstanding balance, the resulting prepayment speed includes both. For deals experiencing losses, it is advisable to reallocate the portion of the prepayment speed due to losses to the Performance tab. (If the prepayment speed is displayed as a PSA, this requires converting it to CPR, partitioning this rate into true prepayments and defaults, entering the default portion plus any additional forecasted defaults in the Performance tab as a CDR, converting the remaining CPR back to PSA, and entering this PSA as the prepayment speed on the Collateral tab. For PPC speeds, you can use the Returns tab to convert PPC to CPR.)

Given the default rate, the loss severity is the portion of the principal in default that you do not expect to recover. A loss severity of 100% indicates principal reduction at the default rate, whereas a loss severity of 0% simply indicates additional prepayments. A loss severity of 60% assumes that 40% of the balance can be salvaged through re-sale. The number of months to liquidation can also be specified. This is the number of months required for re-sale of a defaulted mortgage, during which time mortgage payments are not made.

The Performance tab is available for CMO Whole Loans and ABS Home Equity Loans that have

been retrofitted for loss modeling. Please be aware that changing the settings for one security on either of these tabs may affect other securities backed by the same collateral.

**Security Calculator - CMO Model - 22541NUC (06/05/2009)**

Calculate Save Print Export Options Lookup 06/05/2009

**Reference** OAS Analysis **CMO (Non-Agency)** Analytics Cashflow Returns History

Identifier ISIN Country Currency  
22541NUC United States USD

Issuer Tranche # Tranche Type  
CSFB\_2002-030-DB3 13 SUP

Coupon Maturity First Principal Payment 12/25/2002  
7.309 11/25/2032 Formula

Issue Date Coupon Date Days Delay Pmt Frequency Day Count  
11/25/2002 11/25 24 Monthly

Sector 1 Sector 2 Moodys S&P Fitch User  
CMO SUP Ca B N/A

**Collateral** Collateral Detail Deal Summary Performance

Original Deal Size (Mil) 556.926  
Collateral Type WH30 (Mixed Collateral)

NWAC (%)	WAM (Mos)	PSA%	CPR%
7.716	266	490	0.00

Cleanup Call 5  Activate

**Collateral** Collateral Detail Deal Summary Performance

Status  
Credit Trigger in Effect  Yes  No  
# of Months to Status Change 0

Forecasted Defaults  
Default Rate (%) CDR 0.000  
Loss Severity (%) 0.000  
# of Months to Liquidation 0

**Analytics**

Pricing Method BondEdge Pricing

Current Price	27.104
Yield to Maturity	104.010
Yield Value of 32nd	0.152
Current Yield	26.966
Average Life (Years)	3.250
Modified Duration	0.757
Local Duration	1.073
DV01	0.002
Effective Duration (Par)	11.313
Convexity (Par)	-0.109
Treasury OAS	2100
LIBOR OAS	2100
Nominal Spread	10199
Accrued Interest	0.081
Original Principal (Mil)	6.962
Remaining Principal (Mil)	4.255

Security Calculator - CMO Model - 22541NUC (06/05/2009)

Calculate Save Print Export Options Lookup 06/05/2009

Reference **OAS Analysis** **CMO (Non-Agency)** Analytics Cashflow Returns History

Identifier ISIN Country Currency  
22541NUC United States USD

Issuer Tranche # Tranche Type  
CSFB\_2002-030-DB3 13 SUP

Coupon Maturity First Principal Payment 12/25/2002  
7.309 11/25/2032 Formula

Issue Date Coupon Date Days Delay Print Frequency Day Count  
11/25/2002 11/25 24 Monthly

Sector 1 Sector 2 Moodys S&P Fitch User  
CMO SUP Ca B N/A

**Collateral** Collateral Detail Deal Summary Performance

Original Deal Size (Mil) 556.926

Collateral Type WH30 (Mixed Collateral)

NWAC (%)	WAM (Mos)	PSA%	CPR%
7.716	266	240	0.00

Cleanup Call 5  Activate

**Collateral** Collateral Detail Deal Summary **Performance**

Status

Credit Trigger in Effect  Yes  No

# of Months to Status Change 0

Forecasted Defaults

Default Rate (%)	CDR	15.000
Loss Severity (%)		45.000
# of Months to Liquidation		12

Pricing Method BondEdge Pricing

Current Price	27.104
Yield to Maturity	33.260
Yield Value of 32nd	0.092
Current Yield	26.966
Average Life (Years)	2.250
Modified Duration	1.254
Local Duration	1.425
DV01	0.003
Effective Duration (Par)	9.946
Convexity (Par)	-0.074
Treasury OAS	2100
LIBOR OAS	2100
Nominal Spread	3179
Accrued Interest	0.081
Original Principal (Mil)	6.962
Remaining Principal (Mil)	4.255

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