

Take your fixed income analysis to the next level

Find out more about FactSet's fixed income analysis solutions in this 7-page collection of published *Query* stories.

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How far will they fall? Scrutiny mounts on subprime mortgages

Published in *Query*, June 2007.

Before Congress's Joint Economic Committee, Fed Chairman Ben Bernanke recently testified, "A large increase in early defaults on recently originated subprime variable-rate mortgages casts serious doubt on the adequacy of the underwriting standards for these products, especially those originated over the past year or so."

Not surprisingly, investors have started to look more closely at the credit quality of securitised mortgages. To answer this growing need, Fixed Income Manager lets you assess exposure to subprime mortgages, measure the impact of rising default and delinquency rates on the securities backed by subprime mortgages, and use credit derivatives on asset-backed securities to hedge this risk.

The issuance of subprime mortgages grew as market forces converged to provide a ready market for asset-backed securities (ABS). ABS distribute exposure to default and prepayment risk to differing securities within the deal. For each security, investors must assess the risk of the underlying collateral and measure the likely impact of default and prepayments.

Examine the credit worthiness of ABS collateral

To perform this analysis, scrutinise the collateral portfolio of an ABS with Fixed Income Manager's Calc Collateral function. First, run a customised report to find available loan-level attributes, including a collateral summary for the entire deal. Next, subtotal those attributes by other attributes to highlight their range. Lastly, analyse cross-sections to reveal concentrations of attributes that simple averages would miss.

For instance, you may find with your cross-sectional analysis that hybrid mortgages originated in California have low FICO scores. Available attributes include loan type, loan-to-value, loan balance, FICO, cumulative losses and prepayments, and geographical distribution.

Assign loss and prepayment assumptions

Next, look to the impact on your securities. If possible, a subprime homeowner will prepay a loan rather than default. However, slower prepayment rates mean more loans are available to default. Adding to the complexity is the fact that ABS typically have dozens of dissimilar mortgages backing the deal. The same loss and prepayment assumption would be inappropriate for all this collateral.

With Fixed Income Manager, you can customise the assignment of loss and prepayment assumptions, based on collateral attributes, to determine an expected price. By simulating differing levels of defaults and prepayments, you can gauge the magnitude of the potential price risk.

Use ABS credit derivatives

With this information, you may choose to offset some risk. Fixed Income Manager supports the newly created credit default swaps on ABS. Choose ABX, standardised credit default swaps based on a collection of asset-backed securities, or

Pay-As-You-Go, customised credit default swaps for specific asset-backed securities.

With these tools, you can build a comprehensive view of your asset-backed securities and credit default swaps. This consistent framework of securities and derivatives lets you fine-tune your risk tolerances for defaults and prepayments.

For more information on Fixed Income Manager, visit www.dersol.com/fim.htm.



Derivative Solutions adds Trade Solver and Optimization tools

Published in *Query*, March 2007.

Derivative Solutions, a FactSet company, has released two new portfolio management tools: Trade Solver and Optimization. Trade Solver helps you rebalance nearly any attribute of a portfolio, including yield, duration and sector allocation by trading one or two bonds in the portfolio. Optimization lets you overhaul a portfolio by targeting multiple portfolio attributes and meeting those attributes with a universe of potential buy candidates.

Trade Solver

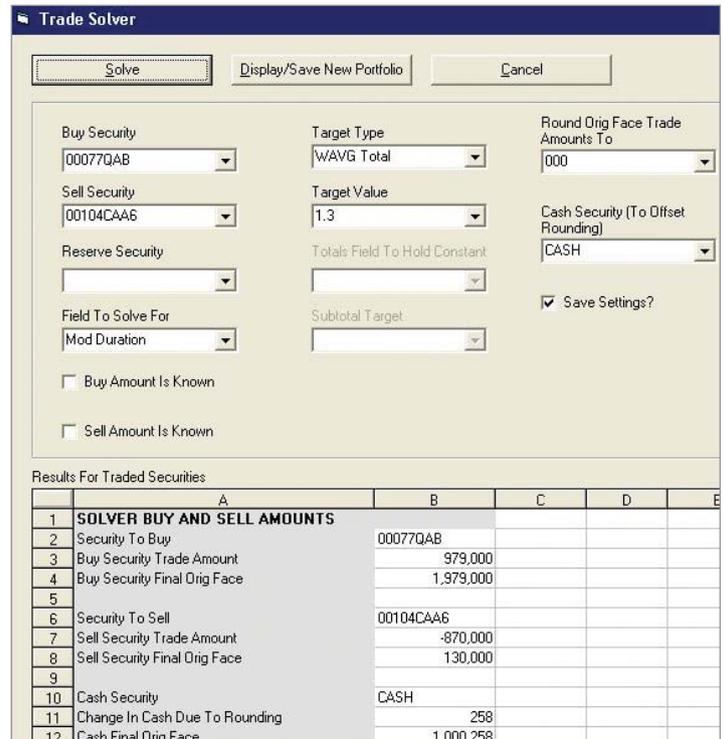
With Trade Solver, you can quickly rebalance an existing portfolio to a desired target by trading one or two securities within the portfolio. Indicate the buy and sell securities, the portfolio attribute, and its target value, and Trade Solver will determine the combination of buy and sell securities, along with the overall impact on the resulting portfolio.

Optimization

Optimization creates a portfolio that maximises a specified portfolio attribute, such as option-adjusted spread, while meeting multiple portfolio targets like duration ranges or sector limits. The resulting portfolio is the optimal selection from a universe of potential buy candidates, which can include a starting portfolio as well. You'll see the resulting portfolio and buys and sells to the starting portfolio to help you invest new money into a portfolio.

Integrated in the optimisation are the objective and the constraints. The objective is the portfolio attribute – nearly any available calculation – to be optimised, which can be maximised or minimised. The constraints, also nearly any available calculation, are a set of portfolio targets that you can specify as greater than, less than, or equality constraints.

By specifying a benchmark portfolio, you can create benchmark-relative constraints by sector or other subtotal, such as the portfolio allocation to corporate bonds. You can also constrain allocation to individual bonds.



Trade Solver lets you rebalance an existing portfolio to a desired target.

Field Group	Field Sub Group	Field Name	Constraint	Value To Test	Test Type
Descriptive Information	General	Coupon	>	Benchmark +0.5	Totals
OAS and Risk Measures	Effective Duration	Effective Duration	=	3.5	Totals
OAS and Risk Measures	24	Partial Durat Spots	>	0.5	Totals
User Defined Scenarios	3m	Holding Period Return	>	1	Totals
Portfolio Contributions	Static Calculations	Investment - %	<	10	Each Bond
OPTIMAL PORTF	Static Calculations	General	<	5	Subtotal=Sector=Industrial
Name	Descriptive Information	Ratings	>	A	Totals

Security Type	Security Name	Original Position	Amount Remaining	Amount Transacted	Entire Position Transacted?
TOTALS	WAVGs (ReCalc)	928,099.424	619,216.212	35,109,394.106	
DS BOND	US 3.98 6	89,386.000	89,386.000	0.000	No
DS BOND	US 4.07 2	186,588.804	97,685.708	88,903.096	No
DS BOND	US 4.13 1	185,420.289	60,977.687	124,442.602	No
DS BOND	US 4.17 3	186,786.884	150,449.935	36,336.949	No
DS BOND	US 4.3 7	51,693.396	24,129.807	27,563.589	No
DS BOND	US 4.65 5	44,428.000	44,428.000	0.000	No
DS BOND	US 4.69 4	183,796.051	152,159.075	31,636.976	No
DS BOND	FGBBB6.2 9	0.000	0.000	1,373,053.196	
DS BOND	FLAA4.6 1	0.000	0.000	495,216.475	
DS BOND	INA4.3 1	0.000	0.000	283,319.035	
DS BOND	INA4.5 2	0.000	0.000	64,699.927	

Optimization creates a portfolio that maximises a specified attribute while meeting multiple targets.

Post-optimisation, you can use the constraints to create compliance reports to monitor your portfolio.

For more information or a demonstration of these features, e-mail dersol@factset.com.

Fixed Income Manager release includes enhanced analytics

Published in *Query*, January 2007.

The latest release of Fixed Income Manager reflects continued progress in the aim of Derivative Solutions, a FactSet Company, to be the industry leader in structured products, provide comprehensive analytics for the full universe of fixed income securities and their derivatives, and integrate leading data vendors in an easy-to-use application.

Leadership in Structured Products

The just-released Fixed Income Manager includes expanded functionality in credit derivatives, including ABS Pay-As-You-Go swaps and single-name corporate CDS. CDS, a new included loss name, infers the hazard rate from the current market CDS rate. You can also analyse standard and bespoke tranches on ABS indices and portfolios.

For a portfolio of asset-backed securities, Fixed Income Manager now lets you analyse underlying collateral exposures. Virtually all security-level reporting features are available for collateral analysis, letting you test the true degree of diversification in your asset-backed portfolios while highlighting unintended sources of risk.

In addition, you can add a prepayment and loss multiple to your prepayment and loss assumption. The impact, scaling the model such that recent experience is reflected in future projections, is a simple way to continually recalibrate your prepayment models.

Fixed Income Manager also includes updated prepayment models with new parameters to reflect recent prepayment experience.

Comprehensive Analytics

Create realistic simulations of market movements by simulating multiple sector spread movements, which move individual sector spreads in different directions within a single simulation. Other added functionality lets you analyse the interest rate-dependent aspects of preferred stocks.

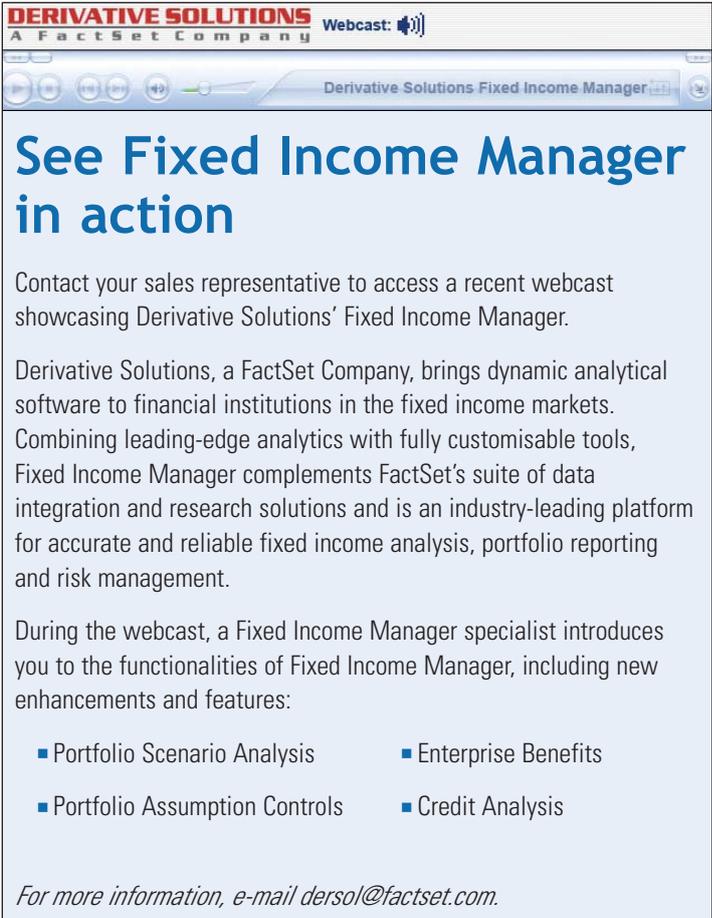
In addition, Fixed Income Manager now includes an unlimited number of partial durations, tax-equivalent yield calculations for municipals, and greater control of scenario reinvestment assumptions.

User-Friendly Software

Navigation within the batch application is now easier with a revamped interface. Plus, you can launch Fixed Income Manager from an outside program to efficiently manage the demands of high-volume reporting.

Finally, Fixed Income Manager has improved the display of analytical results so that each screen can have its own subtotal ranges. Use these subtotals to create two-dimensional, cross-sectional reports of portfolio characteristics that can quickly highlight the intended outlook for return and risk in a portfolio.

For more information, visit www.dersol.com/fim.htm or e-mail dersol@factset.com.



DERIVATIVE SOLUTIONS Webcast: 
A FactSet Company

Derivative Solutions Fixed Income Manager

See Fixed Income Manager in action

Contact your sales representative to access a recent webcast showcasing Derivative Solutions' Fixed Income Manager.

Derivative Solutions, a FactSet Company, brings dynamic analytical software to financial institutions in the fixed income markets. Combining leading-edge analytics with fully customisable tools, Fixed Income Manager complements FactSet's suite of data integration and research solutions and is an industry-leading platform for accurate and reliable fixed income analysis, portfolio reporting and risk management.

During the webcast, a Fixed Income Manager specialist introduces you to the functionalities of Fixed Income Manager, including new enhancements and features:

- Portfolio Scenario Analysis
- Enterprise Benefits
- Portfolio Assumption Controls
- Credit Analysis

For more information, e-mail dersol@factset.com.

Reflect your expectations for prepayments with Derivative Solutions

Published in *Query*, October 2006.

Prepayment expectations are one of the critical determinants of value in mortgage- and asset-backed securities (MBS and ABS). They're also contentious, with every investor holding strong opinions. To further complicate matters, new types of mortgages introduced over the past several years have been coming to market faster than prepayment modellers can forecast their prepayments. Derivative Solutions, a FactSet company, comes to the rescue with methods for investors to reflect prepayment expectations in valuations.

Adjust and scale models

Investors use prepayment models to forecast how homeowners will exercise their embedded options to prepay mortgages over time. Models reflect long-run, demographic patterns of housing turnover and the propensity to refinance when new mortgage rates are below the homeowner's current rate. Accurate prepayment expectations are critical for successful investing in MBS, with the interaction of prepayments, interest rates, cash flow structure and price having a dramatic impact on the value, risk and return characteristics of MBS.

Derivative Solutions offers a wide range of prepayment models, including Agency Fixed and Floating rate mortgages and whole loan and home equity mortgages. Use standard models or adjust parameters to reflect the expected prepayments of specific mortgages. You can mix and match models, assigning the standard models to generic MBS, and edit models for MBS with particular

characteristics. You can also build and integrate your own prepayment models.

To scale a prepayment model, simply append the model name with a percentage. For example, type ",120" after a model name to scale prepayments 120% faster than predicted. You can also specify which component of the model should be scaled. For instance, append "(Refi=120,Turn=80)" to the prepayment model to return prepayments due to refinancing 120% faster and to turnover 20% slower.

Calibrate historical prepayments

Home equity mortgages offer special challenges. While the pattern of prepayments is similar across home equity mortgages, the level is different across issuers and even across different issuance years of the same issuer. To meet this challenge, you can calibrate historical prepayments. This will automatically scale models to the level of prepayments to retain the common pattern of prepayments while reflecting the actual prepayment experience.

Most prepayment models are based on historical experience, but some are scaled to reflect current market pricing. For instance, interest-only (IO) and principal-only (PO) securities based on the same mortgage collateral trade at different option-adjusted spreads (OAS). Scale the model so both securities trade at the same OAS, then use the multiplier to find relative value for other mortgage securities derived from the same collateral.

For more information, contact dersol@factset.com.

SECURITY INPUTS	4			
Security Type	ds mbs	ds mbs	ds mbs	ds mbs
Security Name	fh300652004	fh300652004	fh300652004	fh300652004
Original Face	1,000,000.00	1,000,000.00	1,000,000.00	1,000,000.00
Price	101.08	101.08	101.08	101.08
Prepay Name	dsp fh30-2006	dsp fh30-2006,120	dsp fh30-2006 (refi=120,turn=80)	dsp fh30-2006,beoas
ANALYSIS RESULTS - SECURITY LIST				
Security Type	DS mbs	DS mbs	DS mbs	DS mbs
Security Name	fh300652004	fh300652004	fh300652004	fh300652004
Prepay	dsp fh30-2006	dsp fh30-2006,120	dsp fh30-2006 (refi=120,turn=80)	dsp fh30-2006,111.6
Price	101.080	101.080	101.080	101.080
Yield	6.181	6.116	6.152	6.144
Avg Life	4.270	3.563	3.924	3.835
Proj PSA Life	276.228	326.590	295.887	305.487
Prepay Name (OAS)	dsp fh30-2006	dsp fh30-2006,120	dsp fh30-2006 (refi=120,turn=80)	dsp fh30-2006,111.6
OAS	-0.070	-0.126	-0.172	-0.104
Effective Duration	3.305	2.818	3.172	3.012

Derivative Solutions lets you mix and match prepayment models, scale models and even build your own.

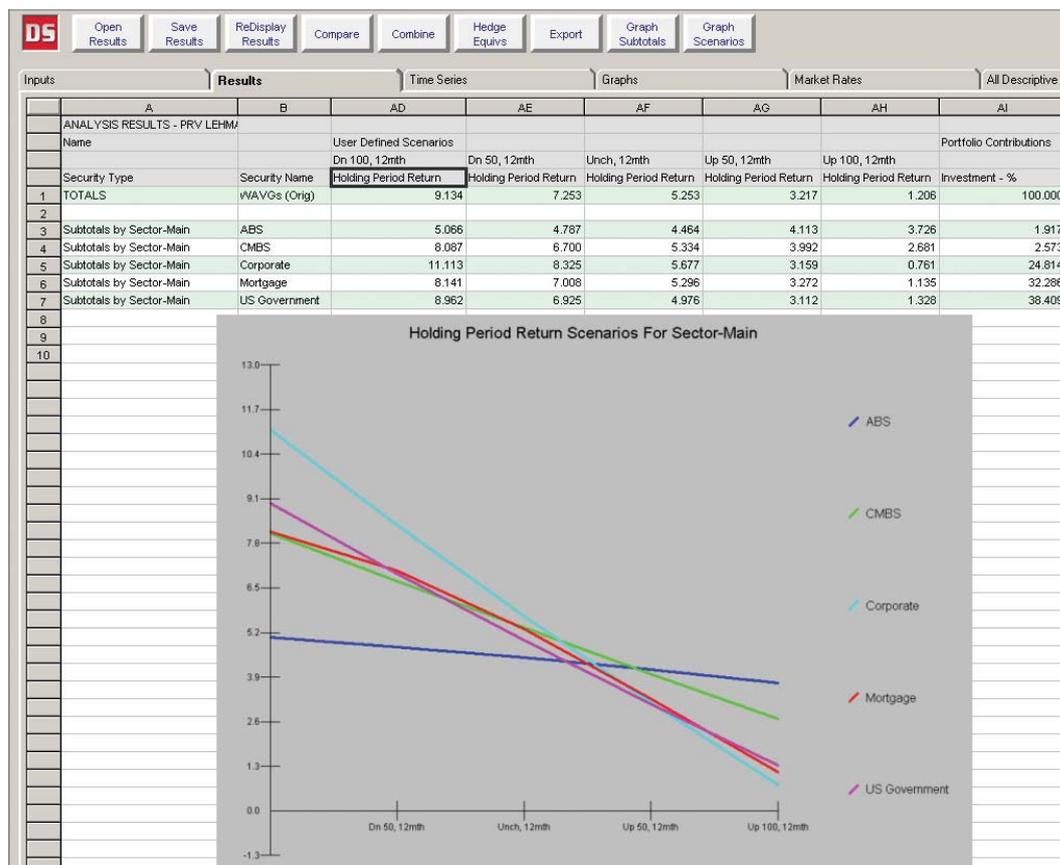
Access complete fixed income plan analysis with Derivative Solutions

Published in the Plan Sponsor special edition of *Query*, June 2006.

Plan sponsors investing in fixed income face the unique challenge of compiling the risk statistics necessary to analyse their plans as a whole, their current lineup of managers, and prospective managers. Given the complexities of fixed income modelling, different managers often report different risk profiles for the same security. Derivative Solutions, a FactSet company, offers Fixed Income Manager for access to consistently calculated analytics on all of your fixed income securities, and the derivatives used for hedging, across all of your managers.

At its most fundamental level, this solution works for plan sponsors because of the robustness of the analytics. Derivative Solutions partners with the industry's leading data vendors to offer broad coverage of publicly available securities in the market with exceptionally high quality data. In addition, a powerful analytical engine provides a wealth of options to match your preferences and the nuances inherent in different types of securities.

Unfortunately, not all of the terms and conditions for the bonds in your portfolio are likely to be publicly available. However, for private placements and derivatives, Derivative Solutions provides easy-to-use customisable modelling tools.



Fixed Income Manager gives you access to consistently calculated analytics on all your fixed income securities.

Once you've compiled all of the necessary statistics, you can analyse a manager or your plan through Fixed Income Manager or in FactSet's Portfolio Analysis. Project cash flows, simulate shocks to the yield curve, or study VaR with Fixed Income Manager. Then use the same data in Portfolio Analysis to attribute performance versus your benchmark, analyse fundamental bond characteristics, or simulate the introduction, removal, or reallocation of external managers in your plan.

For more information on Derivative Solutions, e-mail dersol@factset.com.

To learn more about any of FactSet's solutions for Plan Sponsors, e-mail plan_solutions@factset.com.

Analyse ABS and CMO collateral portfolios with Calc Collateral

Published in *Query*, June 2006.

Calc Collateral, the latest offering from Derivative Solutions, a FactSet company, now lets you perform in-depth dissection of the collateral portfolio of asset-backed securities (ABS) and collateralised mortgage obligations (CMOs).

ABS and CMOs have been successful, in part, because the payment structure creates securities tailored to an investor's appetite for prepayment and loss uncertainty. The tradeoff in this investment, however, is that this structure can obscure the collateral composition and expose the investor to hidden risks. Accurate analysis of the underlying collateral, which Calc Collateral provides, is critical in assessing the likelihood that prepayments or losses will stress the structure and help uncover those hidden risks.

With Calc Collateral, you can create a custom report that lists available loan-level attributes with a collateral summary for the entire deal. You can then subtotal various attributes to highlight their range, and analyse cross-sections to reveal combinations of attributes and concentrations that simple averages would miss.

For instance, your cross-sectional analysis could show that delinquencies are accelerating in high loan-to-value loans or that hybrid mortgages in the collateral pool were originated primarily in the California market. Calc Collateral includes attributes such as loan type, loan-to-value, loan balance, FICO score, cumulative losses and prepayments, and geographical distribution.

CROSS-SECTION SUBTOTALS		FICO Score					
LTV	Calculations	<= 600	600 to 650	650 to 700	700 to 750	> 750	Subtotals by LTV
<= 60	Current Face - %	0.602	0.99	3.527	7.23	9.562	21.935
	Delinquencies 30+	19.431	5.508	2.178	1.758	1.615	2.676
	Foreclosure Rate	6.59	1.636	0.425	0.309	0.323	0.654
60 to 70	Current Face - %	0.525	0.698	3.627	4.924	6.86	16.665
	Delinquencies 30+	19.85	5.218	1.307	0.898	0.961	1.797
	Foreclosure Rate	6.734	1.614	0.24	0.164	0.191	0.461
70 to 80	Current Face - %	1.241	2.607	12.172	19.622	19.634	55.316
	Delinquencies 30+	19.85	3.168	1.282	1.078	0.868	1.572
	Foreclosure Rate	6.734	0.915	0.201	0.16	0.119	0.339
80 to 90	Current Face - %	0.652	0.377	0.963	1.006	0.625	3.64
	Delinquencies 30+	19.85	7.097	1.989	3.225	2.474	6.198
	Foreclosure Rate	6.734	2.216	0.478	0.854	0.674	1.934
> 90	Current Face - %	0.507	0.283	0.483	0.736	0.436	2.444
	Delinquencies 30+	19.572	15.955	7.364	2.015	3.34	8.612
	Foreclosure Rate	6.639	5.32	2.324	0.552	1.033	2.819
Subtotals by FICO Score	Current Face - %	3.64	4.954	20.771	33.518	37.116	100
	Delinquencies 30+	19.197	5.041	1.681	1.337	1.178	2.247
	Foreclosure Rate	6.509	1.529	0.322	0.232	0.216	0.559

Calc Collateral includes attributes such as loan type, loan balance, geographical distribution, and FICO score, as shown here.

Calc Collateral can also be used in broader applications. For example, you can simultaneously analyse multiple ABS tranches to summarise the exposure of your entire ABS portfolio and easily highlight the geographical dispersion or concentration in high loan-to-value mortgages, subjects that many investors have grappled with over the past year.

Calc Collateral can also provide insight into collateralised debt obligations (CDOs) of ABS, which have the additional complexity of layered structures that obscure the ultimate collateral exposures. Calc Collateral lets you reveal the underlying loans of each deal in the structure for a comprehensive view of the ABS CDO.

This in-depth collateral analysis, along with Derivative Solutions' customisable, loan-level assignment of prepayment and loss assumptions, helps you assess the true performance characteristics of an ABS or CMO, develop appropriate assumptions, and reflect these assumptions in your analysis.

For more information on Calc Collateral, e-mail dersoll@factset.com.