



Version 8.3.50

USER'S GUIDE

Release Date: 1/30/15

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Yellow highlighted topics refer to **Financial Compass** features only.

Green highlighted topics refer to both **Financial Compass** and **Budget Compass Plus** features.

All features are available for **Budget Compass Plus** and **Budget Compass** clients with a system upgrade.

Congratulations! Your organization has chosen the best planning system available for community financial institutions. You are now part of the Compass team. Many of the ideas for Compass have come from our community of users. Compass is the result of over 40 years of experience working with our clients - we welcome your comments and suggestions.

Planning

Every financial institution benefits from building plans, both short and long term. Compass is designed so that the planning process is as simple and fast as possible. Your computer does the work of processing the very complex interactions between the interest rate environment and financial institution management decisions.

Compass is also a valuable way to learn how financial institutions work. The modeling techniques used in Compass represent real world behavior – cause and effect relationships between various elements. Understanding these relationships is a key to success.

Compass helps by letting you build and experiment with these relationships. First you start with excellent historical data, including detailed projected cash flows from your current customer relationships. Projection assumptions revolve around interest rates in your market (called Drivers), your price for assets and liabilities as influenced by those Drivers, and the volume changes that result from that environment.

We all know that it is impossible to predict any of these factors with precision; therefore, Compass lets you test multiple possibilities quickly and easily.

Interest Rate Risk

Regulators require all financial institutions to perform interest rate risk analysis. Compass provides for that and more. Compass lets you test future courses of action so that you can adjust to current and future challenges. Risk management allows you to demonstrate action plans that produce good results, no matter which way rates move in the future.

Compass performs all risk measurements and provides the ability to adjust as your policies and regulators dictate. Flexible gap time buckets, rate shock increments and reporting all ensure that you will be prepared with the answers. A unique risk measurement tool developed by Plansmith, **Margin Risk Tolerance**, answers the question of how much risk an institution can afford to take. Dynamic gap, prolonged and future rate shock are also available to document action plans.

Communicating

Effective reports go beyond merely producing data to provide information, give focus, stimulate discussion and develop action plans. Compass reports are designed to make YOU look good. You will have control over formats that allow just the right amount of detail appropriate for your audience. Comparisons between your budget, actual results, historical performance and even your peers' performance will help you identify opportunities.

Accuracy and appearance are both important. Compass identifies questionable data at every step in the process. All report totals and ratios are automatic. Our goal is to provide error checking using our unique *red flags* so that input mistakes and just plain bad data don't make it into print. And finally, Compass is backed up by true model validation.

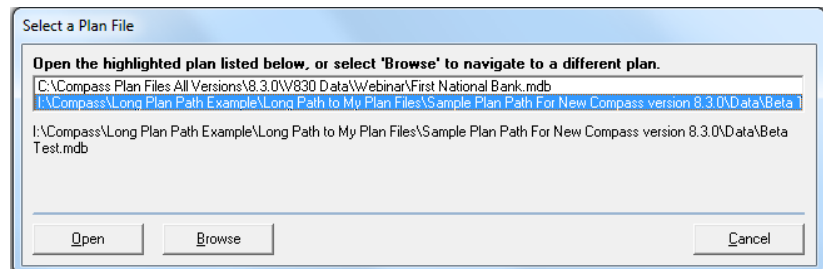
Client Support Services

A team of proven professionals is standing by to help you with your questions, dilemmas and strategy techniques. We are available each business day from 8:30 AM to 5:00 PM CST either by Phone: 1.800.323.3281, Fax: 1.847.705.8200, Email: support@plansmith.com or you may visit our Website @ www.plansmith.com, 24/7 for tips, tutorials and webinar training sessions.

GETTING STARTED

When you open Compass, you will be asked to **Select a Plan File**. The last plan file that was used will be shown at the top of the plan window.

As you work with other plans, their name and path will also appear in the window. You can click on any other plan within the window, and then click the **Open** button to load it.



Use the **Browse** button when you need to find a plan not in the list. You may need to do this when you first load Compass onto a new computer or if you change the location of your files.

Temporary Files

Regardless of the method that you use to select a plan, Compass will copy your selection into temporary files (the name of the permanent file is still shown on the status bar). That means that you can be comfortable in experimenting. Nothing you do will change the permanent plan until you save the data. You will be prompted to save when you quit Compass, but you can save at any time by clicking the **Save Plan** button or selecting **File** then **Save** from the pull-down menu.

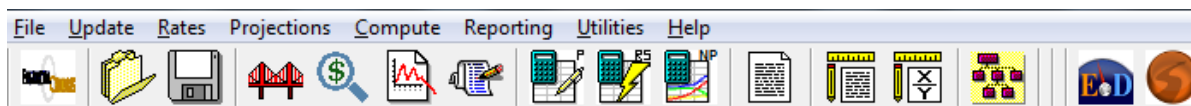
Compass updates the temporary plan file virtually every time that you press the Enter key. Should you have a power failure or abnormal program termination, you can recover the temporary plan when prompted upon re-launching Compass.

WHAT'S IN A PLAN?

Compass has space for up to five years of **history**, five years of **projections** and five years of **budget** in each plan. Compass history and projection columns are designed to be updated each month with actual balance, maturity and interest rate information. Projections are then automatically revised for the remainder of the five-year plan. Normally, it is necessary to review and revise these automatic projections to find ways to improve performance and to reduce risk. Senior management should provide input for these revisions to increase the accuracy of the projections and to get better operating results.

The budget columns in Compass are designed to be updated less frequently. Usually budgets are formally approved on an annual basis; however some institutions review the budget more frequently. Compass lets you prepare budget figures in the projection columns and then transfer those figures to the budget columns when you are ready to freeze them for future comparisons. This process is called *locking the budget*. It is accomplished in the Utilities area of the menu. The budget columns in Compass do not change when you load additional historical data. Please note that you do not enter data directly into the budget tabs or columns.

NAVIGATION TOOL BAR



Compass provides for easy navigation. A *button bar* with graphic symbols, allows you to move through the various operational functions faster. You can also use the *menu bar* located just above the button bar. The menu bar offers access to some additional functions that are used less frequently than those on the buttons.



Home will take you back to the initial splash screen with the company name and plan file displayed.



Open Plan allows the user to browse for a plan. It has the same function as the Open option in the File menu. When you click this button and select a plan, temporary files are created for the new plan.



Save Plan saves the temporary files into the permanent plan files on the disk. It has the same function as the Save option in the File menu.



DataBridge is used to update your financial data. The default is to the DataBridge download where you import each month's information.



Update Financial is where you can edit actual general ledger data.



Rate Forecast allows you to update, download or modify interest rates (driver rates) for each of three rate scenarios (plan/high/low). You can also model one driver to another.



Account Projections takes you into the actual planning area to review and project each balance sheet and income statement item.



Compute the Plan performs the calculations needed to reflect the impact of changes in historical data or projections on the financial statements. You must Compute the Plan prior to viewing and printing reports.



Compute a Rate Shock allows you to calculate a shock impact on Net Interest Margin and Economic Value of Equity in a parallel rate change environment.



Compute a Non-Parallel Rate Shock allows you to calculate a shock impact on Net Interest Margin and Economic Value of Equity in a non-parallel rate change environment.



Reports gives you access to all reporting functions including Financial, Variance, Interest Rate Risk and Charts.



Report Designer allows the further customization of reports not already available in the preset report array by using drag and drop functionality.



Ratio Designer will assist you in creating custom ratios for use in reports or in creating KPIs (Key Performance Indicators).



Consolidation process summarizes all listed plans into a single consolidated plan.



Executive Dashboard button will navigate those with subscriptions to our web-based reporting system for senior management directly to the website.



Bankers GPS, Plansmith's "goal positioning system" can be launched directly from here with subscription.



DATABRIDGE

Compass provides several ways to load historical financial data as well as maturity and repricing information on the existing portfolio.

DataBridge is the part of Compass that automates the process of reading data files extracted from your other data processing systems. Using DataBridge offers numerous advantages:

1. Saves time
2. Eliminates Input Errors
3. Captures Cash Flow More Accurately
4. Allows Reclassification of General Ledger Accounts
5. Automatic Error Detection

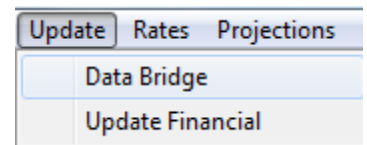
There are three basic steps in using DataBridge:

1. Creation and transfer of the monthly extract files from your data processor. These files must be copied to the same folder as the rest of your Compass data to be processed. The procedure varies significantly from one financial institution to another. If you are unfamiliar with your process, contact your data processor for assistance.
2. Running the DataBridge process in Compass. This performs the actual update of the Compass fields/files.
3. Correcting problems identified in the DataBridgeDownloadErrors.log. This is necessary when new general ledger accounts or application codes are added, or when application data is not in balance with the general ledger.

MONTHLY DATABRIDGE OPERATION

Always make a backup copy of your plan prior to downloading. The download changes hundreds of data fields and causes Compass to reforecast all remaining months of the plan. Downloading incorrect files or choosing the incorrect month can be difficult errors to reverse.

Each month-end, you will receive new download files from your data processing system. Copy these files to the same folder as your plan data. Click the DataBridge button or select **Update** then **DataBridge** from the pull down menu.



Download For:

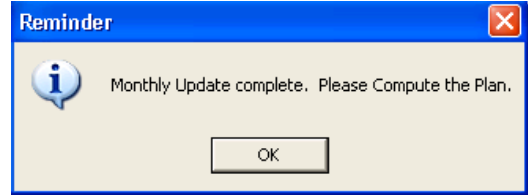
Apr ▼

2014 ▼

Perform Download

1. Make sure the time period is set to the appropriate month and year. Compass will automatically set itself to download into the first month of projected data. Verify that the month is correct. You may click on the down arrow next to the month and select an alternate month, if necessary.
2. Click the **"Perform Download"** button.

3. Upon completion of the download, a **DataBridgeDownloadErrors.log** will be opened in Notepad. This log reflects any errors that occurred during the download. The most common error will be new application code combinations that have not been mapped to DataBridge. To map these new application codes, see the *Adding New Code* section that follows. When you make corrections, you will need to rerun the download to capture these changes.
4. Check to see that the balance sheet is in balance and that pretax income agrees with totals for the month by following the *Data Verification* section. After making any data corrections directly in the Update Financial screen, you will save the data and be prompted to Compute the Plan.
5. Compute the Plan before viewing projections or reports.



ADDING NEW CODES

Plansmith constructed your DataBridge by using up to five codes from each download file to identify how to distribute the data to Compass accounts. These codes are called “descriptors.” All combinations of these descriptors that were present when Plansmith created your download were loaded into a list called a **Correlation Table**. There may be as many as eight Correlation Tables, but many institutions will not use all eight.



Correlation Tables cross-reference your code combinations to your Compass plan’s Chart of Accounts. In your Compass plan, a balance sheet account carries all balance, interest income and rate information within one record. Therefore, the same Compass account may be used in the balance, income, and maturity Correlation Tables.

The table names are already included in your individual custom file specification. The tables have been designed to be as efficient as possible for your institution, taking into consideration the requirements of Compass and the quality of your data center extract. Therefore, the tables you receive are a good starting point, and most users find no need to deviate from these tables.

EDITING THE CORRELATION TABLE

1. Click on the **Correlation Table** that you want to edit from the selections on the right-hand side of the DataBridge screen.

You are Editing the Balance Sheet Correlation Table

GL Codes	Data Goes To	My Account List
11730000	Cash and Due From Banks	Cash and Due From Banks
11740000	Cash and Due From Banks	Fed Funds Sold
11750000	Fed Funds Sold	US Treasuries
11760000	Cash and Due From Banks	US Agencies
11800000	Cash and Due From Banks	CMO's - MBS
11810000	Cash and Due From Banks	Municipals
11870000	Cash and Due From Banks	FHLB Stock
12100000	Fed Funds Sold	Corporate Bonds
13000000	US Treasuries	Trading Securities
13050000	US Treasuries	Unreal Gains/Losses
13100000	US Agencies	Commercial Fixed
13150000	US Agencies	Commercial Floating
13300000	Corporate Bonds	Commercial R/E Fixed
13400000	Trading Securities	Commercial R/E Var
13600000	Municipals	Real Estate Fixed
13700000	Business Manager	Real Estate Variable
13900000	Time Deposits- Oth. Insti	Home Equity Fixed
13950000	FHLB Stock	Home Equity LOC
13980000	Unreal Gains/Losses	Mortgage Loans HFS
14020000	Acq/Dev/Const Fixed	Business Manager

2. The left-hand side is the Correlation Table. In this example, the descriptor is simply the General Ledger Account Number. The first column of the table lists all the GL Codes identified. Sometimes the codes are more difficult to decipher. For example, a loan maturity file typically uses a loan type code, plus a rate code to indicate whether the loan is fixed or floating, plus a non-accrual code to separate those loans. In order to decide how to map or link the new codes to a Compass account, you will need to know the codes unique to your own financial institution which are contained in the *DataBridge Specs Workbook* you are given during installation.
3. To establish the link, locate the Compass account in the **My Account List** table that you want to map to the new code. Select the account by clicking on the name, then drag and drop it into the **Data Goes To** column beside the code you want to link.
4. To add a new Code, use the **Insert** key on your keyboard or the **Add** button on the side of the table. You can insert the line anywhere and when you **Save Changes**, the Correlation Table will automatically re-sort itself. You can also select F6 to sort the GL Codes column while in the table.
5. To delete a Code, click on the Descriptor you want to delete and press the **Delete** key on your keyboard.
6. To print the Correlation Table, click on the **Print Table** button and a report will be sent to your printer.

DISTRIBUTION TABLE - SPLITTING GENERAL LEDGER ACCOUNTS

A remarkable feature of the DataBridge download is its ability to reverse engineer general ledger breakouts into something much more useful for simulation purposes. As an example, a financial institution may not be able to break out their loan and deposit information into fixed and floating, an important factor in simulation analysis. By calculating the cash flows from your loan and deposit accounts, the DataBridge can allocate (or apportion) average, end of month and income (or expense) data to the extra categories broken out in the Compass Chart of Accounts.

DataBridge handles this by computing the proper proportions of the total balance for each Compass account. DataBridge uses a **Distribution Table** to define the Compass accounts that are members of a single general ledger account. The Distribution Table can be viewed by clicking the button on the DataBridge screen. Plansmith recommends that you call us for assistance when considering modifications to this table.

Here is an example of how distributions work:

Let's assume the following:

- An institution offers commercial loans in two forms: fixed rate and floating rate.
- Commercial loans are assigned loan type 02 or 03.
- The loan maturity file uses a Rate Code of "00" for Fixed Rate Loans. Floating Rate Loans are any Rate Code other than "00".
- The institution's general ledger recognizes only one category for commercial loans; G/L account # 1130199: *Commercial Loans*.
- The financial institution has set-up 2 accounts in the Compass plan for commercial loans: Commercial Loans-Fixed and Commercial Loans-Floating.

Building a Distribution Table:

1. A distribution set number (1 - 999) is assigned to a group of Compass accounts that will get part of a split of General Ledger amounts. In the current example, the Compass accounts that require a distribution set are: Commercial Loans-Fixed and Commercial Loans-Floating. This first distribution set number must be number 1 and any additional set numbers must be numbered in order (2, 3, 4, etc.). The distribution table is created by entering the **Set Number** in its respective column, then dragging accounts from the **My Account List** column to the **Data Goes To** column.

You are Editing the Distribution Table

Set Number	Data Goes To	My Account List
1	Commercial Loans - Fixed	Cash Balancing
1	Commercial Loans - Var.	Cash
1	Commercial Loans - Adj.	Cash Items in Progress
1	Commercial - LOC- Fixed	Due From Banks
1	Commercial - LOC - Var.	Fed Funds Sold
1	Commercial R/E - Fixed	FHLB IB Demand
1	Commercial R/E - Var.	US Treasuries
1	Commercial R/E - Adj.	US Agencies
1	Commercial R/E - Adj.w/F1	MBS - Fixed
1	Comm.R/E Constr.- Fix.	MBS-FN/FH-Adj. - 1YR CMT
1	Comm.R/E Constr.- Var.	MBS - FN - Adj.- COFI
1	Comm.R/E Const. - Adj.	MBS - FN - Adj.- Libor
2	Construction - Fixed	MBS - GN - Adj. - 1YR CMT
2	Construction - Var.	CMOs
3	REM - Res. 1-4 Fam. - Fix	Municipals
3	REM - Res. 1-4 Fam.- Var.	FHLB Stock
3	REM - Res. MF - Fixed	Syringa Bancorp Trust
3	REM - Res. MF - Adj.	SBA Pools - Adj.
3	REM - Res. 1-4 Fam.2nd -	Sweep Funds
3	REM-1-4 Fam.- LOC	Other Securities

- It is the recommended procedure that all accounts in the Balance Sheet Correlation Table and the Income/Expense Correlation Table (the general ledger accounts) that pertain to this set number be assigned to the Compass account that is listed first in this set, even if the account relates to another member of the set. In this example, all GL accounts would be linked to "Commercial – Fixed".
- When completing the Correlation Tables for the maturity data, codes are assigned to each individual member of the set. In this case, the loan maturity correlation table would look like this:

You are Editing the Loan Maturity Correlation Table		
Loan Codes	Data Goes To	My Account List
50 0 00 0000000000	Commercial Loans - Fixed	Commercial Loans - Fixed
50 1 00 0000000000	Commercial Loans - Var.	Commercial Loans - Var.
50 1 00 0000002100	Commercial Loans - Var.	Commercial Loans - Adj.
50 1 03 0000000000	Commercial Loans - Var.	Commercial - LOC - Fixed
50 1 03 0000002100	Commercial Loans - Var.	Commercial - LOC - Var.
50 1 04 0000000000	Commercial Loans - Adj.	Commercial Leases - Fixed
50 1 04 0000002100	Commercial Loans - Adj.	Commercial Leases - Vari
50 1 06 0000000000	Commercial Loans - Adj.	Commercial - Floor Plans
50 1 06 0000002100	Commercial Loans - Adj.	Commercial - Floor Plans
50 1 08 0000000000	Commercial Loans - Adj.	Commercial R/E - Fixed
50 1 08 0000002100	Commercial Loans - Adj.	Commercial R/E - Var.
50 4 08 0000000000	Commercial Loans - Adj.	Commercial R/E - Adj.
50 4 08 0000002100	Commercial Loans - Adj.	Commercial R/E - Adj.w/fl
51 0 00 0000000000	Commercial R/E - Fixed	Comm.R/E Constr.- Fix.

- When the DataBridge performs the download, any accounts flagged in the Distribution Table are held in memory during the EOM, AVG and INC/EXP portions of the download.

Upon completion of the maturity portion of the download, the DataBridge calculates from the maturity data the percentage of total dollars to be distributed into each of the accounts in the set. The average and end of month balances are distributed in proportion to the total maturities in each category. The weighted average yield is calculated for each category from the rates on that account's maturities. The yield times the average balance is used to proportion the income to the categories. This process insures that the balance sheet and income totals will never be changed. If the application is out of balance to the general ledger or, if all of the data cannot be read because of missing descriptors, the error will be allocated proportionately among ALL the members of the set.

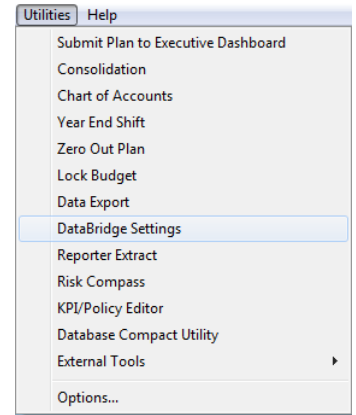
DATA VERIFICATION

Data verification, after updating your Compass plan is very important. This can be accomplished On-Screen or by Using Reports.

On-Screen

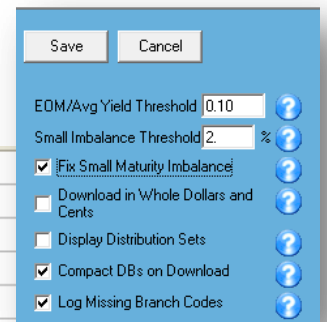
- Verify the 'Balanced' condition of the Balance Sheet and Income Statement by reviewing the month in question from the 'Update, Update Financial' selection in the top menu bar. **Net Income** is at the lower center part of the screen along with any tax amounts. Rounding may cause minor differences. Adjust minor Balance Sheet differences to Other Assets or Other Liabilities. Adjust minor Income Statement differences to Other Income or Other Expenses. Major differences may be the result of a correlation error. Please refer to the 'Identifying Problems in Your Download' section.

- The DataBridgeDownloadErrors.log and **Red Flags** will both identify problems with maturity data. Correcting these issues can be done in the Account Projections under the Maturities tab (see Assumption Validation Feature – Red Flags section).
- Rounding causes minor differences in the dollar values and yields/costs of Maturity data. Adjust minor differences to the last time bucket or use the 'Fix Small Maturity Imbalance' setting located in Utilities, DataBridge Settings. Here are the options within this menu:



- **EOM/Avg Yield Threshold** allows you to raise or lower the default difference threshold of 10bps applied in the DataBridgeDownloadErrors.log.
- **Fix Small Maturity Imbalance** adjusts the last month of maturity data and repricing data for user defined differences by plugging the minor difference in the last scheduled maturity or last scheduled repricing bucket.
- **Download in Whole Dollars and Cents** will store rounded data.
- **Display Distribution Sets** shows the distribution set number in each DataBridge correlation table as a reminder when adding new balance sheet accounts.
- **Compact DBs on Download** is a feature that automatically compacts the Plan.mdb and Rateworks.mdb database files as they increase in size over time.
- **Log Missing Branch Codes** will display branch codes in your data files that are not currently accounted for in the model. (SBU's only).

3: Consumer - Fixed
3: Consumer - Fixed
3: Consumer - Fixed
3: Nonaccrual Consumer
3: Consumer - Fixed



Using Reports

- 'Compute the Plan' prior to viewing any reports.
- Print the following reports. They can be found in the 'Reporting' section of the menu bar.
 - Balance Sheet Report (EOM Balance)
 - Balance Sheet Report (Average Balance)
 - Income Statement (Monthly, Not FTE Adjusted)
- Use the Compass Balance Sheet and Income Statement reports to verify that the balances agree to your financial institution's Month-End Balance Sheet and Income Statement. Corrections to these balances must be made in the Update Financial screen.

IDENTIFYING PROBLEMS IN YOUR DOWNLOAD

The **DataBridgeDownloadErrors.log** identifies problems in the download in a 3 category layout:

```

DataBridgeDownloadErrors.log - Notepad
File Edit Format View Help
GL Code '10114040' in Line # 60 in the GL Extract File GenLedger.dat is not in the Balance Sheet Correlation Table and cannot be downloaded.
Loan Code '14110112 F' in Line # 1 in the Loan Maturity File Loans.dat is not in the Loan Maturity Correlation Table and cannot be downloaded.
Loan Code '14110712 F' in Line # 4 in the Loan Maturity File Loans.dat is not in the Loan Maturity Correlation Table and cannot be downloaded.

Consolidated Plan has the following errors:

on the following accounts, the total balance of maturity data is not equal to the last EOM GL Balance:

Commercial - Float
Commercial - Adj
CD's 1 Mo > $100,000
CD's 6 Mo > $100,000
CD's 18 Mo > $100,000
CD's 6 Mo < $100,000

on the following accounts, the EOM weighted yield differs from the Average Monthly GL yield by more than the specified threshold of 0.1%:

Account      EOM weighted Yield  Avg Monthly GL Yield  Difference
-----
US Agency - MK      4.73                7.55                2.82
Commercial-Float    6.41                5.80                0.61
Commercial-Adj      6.25                5.66                0.59
Residential - Fix    6.00                6.14                0.14
Residential - Float  5.37                5.49                0.12
Residential - Adj    4.39                4.49                0.10
CD's 2 Mo > $100,000  2.00                1.52                0.48
CD's 18 Mo > $100,000 1.57                1.74                0.16
  
```

- **Missing Codes** identified in the various extract files that are missing from the correlation tables.

```

DataBridgeDownloadErrors.log - Notepad
File Edit Format View Help
GL Code '10114040' in Line # 60 in the GL Extract File GenLedger.dat is not in the Balance Sheet Correlation Table and cannot be downloaded.
Loan Code '14110112 F' in Line # 1 in the Loan Maturity File Loans.dat is not in the Loan Maturity Correlation Table and cannot be downloaded.
Loan Code '14110712 F' in Line # 4 in the Loan Maturity File Loans.dat is not in the Loan Maturity Correlation Table and cannot be downloaded.
  
```

- **Total Balance of Maturity is not equal to last EOM GL Balance** reflects errors that are generally rectified during the compute process. Otherwise, a Red Flag will display next to the account in the Account Projections screen to alert you that additional action is needed.

```

DataBridgeDownloadErrors.log - Notepad
File Edit Format View Help
on the following accounts, the total balance of maturity data is not equal to the last EOM GL Balance:

Commercial - Float
Commercial - Adj
CD's 1 Mo > $100,000
CD's 6 Mo > $100,000
CD's 18 Mo > $100,000
CD's 6 Mo < $100,000
  
```

- **EOM weighted yield differs from AVG monthly GL yield** displays yield differences in excess of the Threshold you set in Utilities, DataBridge Settings.

```

DataBridgeDownloadErrors.log - Notepad
File Edit Format View Help
on the following accounts, the EOM weighted yield differs from the Average Monthly GL yield by more than the specified threshold of 0.1%:

Account      EOM weighted Yield  Avg Monthly GL Yield  Difference
-----
US Agency - MK      4.73                7.55                2.82
Commercial-Float    6.41                5.80                0.61
Commercial-Adj      6.25                5.66                0.59
Residential - Fix    6.00                6.14                0.14
Residential - Float  5.37                5.49                0.12
Residential - Adj    4.39                4.49                0.10
CD's 2 Mo > $100,000  2.00                1.52                0.48
CD's 18 Mo > $100,000 1.57                1.74                0.16
  
```



UPDATE FINANCIAL

Data is normally imported into the model via DataBridge. The monthly verification process involves reviewing your actual general ledger data for each month end. The view will default to that last month of data imported into the model.

Simply select the appropriate **month (and year)** for earlier years), and enter or correct individual accounts. Note that interest income or interest expense items are entered in the third column of data. Yields will be calculated automatically. Non-interest income and non-interest expense accounts start after the balance sheet accounts. Running totals help you check accuracy as you go.

Update for: Mar 2014 **Save Data** **Clear Data** **Print** **Subfolders:** Show **Export To Excel** **Column Order:** EDM/Avr

DOWNLOADED DATA				
	EOM Balance	Average Balance	Income/Expense	Yield
Balance Sheet				
Assets				
Cash & Due				
Cash	37,772	28,591	0	0.00
Due From Banks	-5,287	-2,518	0	0.00
Due From Banks-I/B	149	862	15	0.02
Due From Banks-CDs	0	0	0	0.00
Fed Funds Sold				
Fed Funds Sold	22,161	12,839	1,573	0.14
Fed Funds	0	0	0	0.00
Securities				
U. S. Gov't				
U.S. Treasury	0	0	0	0.00
U. S. Agencies				
US Agencies/AFS	95,513	98,465	127,759	1.56
Mortgage-Backed Securities				
MBS	0	0	0	0.00
CMOs	0	0	0	0.00
Municipal Securities				
Municipals	191,534	191,964	329,513	2.06
Stock				
FHLB & FRB Stock	2,807	2,944	12,420	5.06
Equity Investments	2,200	2,200	3,732	2.00
Other Securities				
Corporate	0	0	0	0.00
LEAPS	232	232	226	1.15
CNBF Investments	4	4	7	2.27
Other Fixed Income	664	668	3,222	5.79
Trading				
Gross Unrealized AFS G/L				
MTN-US Agencies	-1,601	-3,065	0	0.00
MTN-Municipals	535	624	0	0.00
MTN-Equity Investments	-53	-65	0	0.00
Loans				
Commercial				
Comm-Mortgage Floating	149,343	149,445	468,579	3.64
Comm-Monthly	10,549	10,556	37,523	4.13
Comm-1Yr	522	522	1,872	4.16
Comm-3Yr	77,027	77,080	274,401	4.13
Comm-5Yr	403,099	403,373	1,589,167	4.58
Comm-Fixed	113,841	113,918	430,611	4.39
<Less> Comm/Partic	-110,932	-110,625	-406,519	4.27
Comm Line of Credit	142,628	140,252	516,002	4.41
Real Estate				
Commercial				
Residential				
Mortg-HELOC	94,352	94,311	314,062	3.92
Mortg-10Yr Call	291,905	289,496	1,214,567	4.96
Mortg-10Yr	25,636	25,520	42,700	1.97

SUPPLEMENTAL DATA			
	EOM Balance	Average Balance	
Current Earnings			
Current Earnings	2,773	3,252	
Off-Balance Sheet Items			
Interest Rate Swaps			
Loan Commitments			
Commitments > 1 Year	0	0	
Commitments < 1 Year	0	0	
Standby Letters of Credit			
Outstanding Letters of Credit	0	0	
Interest Rate Caps			
Interest Rate Floors			
Memo Items			
Number of Employees			
Number FT Employees	0		
Number PT Employees	0		
Number SPT Employees	0		
Custodians	0		
Coulters	0		
CNB Mortgage	0		
Number of Shares			
Number of Shares	0		
Other Memo Items			
Pledge Securities	0		
Trust (BV)	0		
Trust (MV)	0		
Non-Accrual Loans	0		
FHLB Collateral Remaining BP	0		
FRB Collateral - Remaining BP	0		
FMAC	0		

BALANCING RECAP			
	EOM Balance	Average Balance	Income/Expense
Total Assets	1,979,659	1,993,978	6,026,952
Total Liabilities	1,811,802	1,791,539	321,957
Total Capital	167,857	167,440	81,004
Total Liabilities and Capital	1,979,659	1,958,978	400,000
Difference	0	0	2,775,217
			6,074,319
			2,086,389
			631,004
			1,455,383

After you enter data, you must save it. Click **Save Data** to save partial figures in the current month or changes in earlier months.

DataBridge Note: Most extract files do not contain a number for Current Earnings (this figure represents YTD Net Income). Therefore, it is necessary to manually input current earnings after each download. It is always a good idea to check the Update Financial screen to make sure that the **average** and **end of month** balance sheet columns are in balance, and that **Net Income** is correct for that month.



RATE FORECAST

Interest rate changes are inevitable and largely unpredictable, yet a financial institution's performance is directly impacted by these changes. Compass provides many tools that allow you to test strategies for reacting to interest rate changes. Three entirely different rate projections can be maintained in a single rate file called RateWorks.mdb. All Compass plans in a single folder will obtain rate information from the RateWorks.mdb file in that folder. Additional rate projections can be added, without limit, by making copies of plans in other folders (each folder can contain only one RateWorks.mdb file). The Rate Forecast area allows you to input historical and future rate projections from a variety of sources.

Compass refers to these rates as **Driver Rates** because they influence the financial institution's decision making. They are set by the "market" and are beyond the control of the individual financial institution. Your financial institution reacts to these according to its strategy. This strategic reaction is referred to as "pricing" and is discussed in detail in the Account Projections section of this manual.

There is no limit to the number of Driver Rates that you can use. Compass has 22 preset Drivers. You can add more, but it may be acceptable to use only one or two driver rates. If virtually all of your pricing changes occur as a reaction to Prime, then that's the only Driver you need. To add additional Driver Rates, select **New Driver** from the top set of buttons. If you wish to rename a driver, click on the name, then select **Rename Driver**.

Plansmith provides two methods for updating 18 of the 22 preset Drivers automatically with a subscription. A monthly "Rate Update" projects interest rates in the three scenarios as follows:

Plan Rates – no change in rates from last month's average rate

High Rates – ramped increase of 1% per year for two years, ½ % per year thereafter

Low Rates – ramped decrease of 1% per year for two years, ½ % per year thereafter

Plansmith also provides an optional automated download of a rate forecast from **Blue Chip Financial Forecasts**. Blue Chip surveys 50 of the country's top economic forecasting firms each month. The average of these 50 is projected in the Plan Rate scenario; the ten highest for each rate forms the High scenario, the ten lowest forms the Low. Your Blue Chip subscription also includes a monthly newsletter containing commentary and the individual forecasts of each of the 50 participants. There is no more credible source for rate projections than this distinguished group.

AutoUpdate

The automated rate updates are available after the first Monday of each month. Simply click on the AutoUpdate button within the Rate Forecast screen, if the indicator states that your rates are not current. The prompt "This will update your historical rates. Do you want to update your rate forecast" means your projected rates will change. You will need to select "No" if you have a forecast that you do not want changed. Otherwise, select "Yes". The update takes about 5 seconds and the indicator will change to read that your rates are now current upon completion.

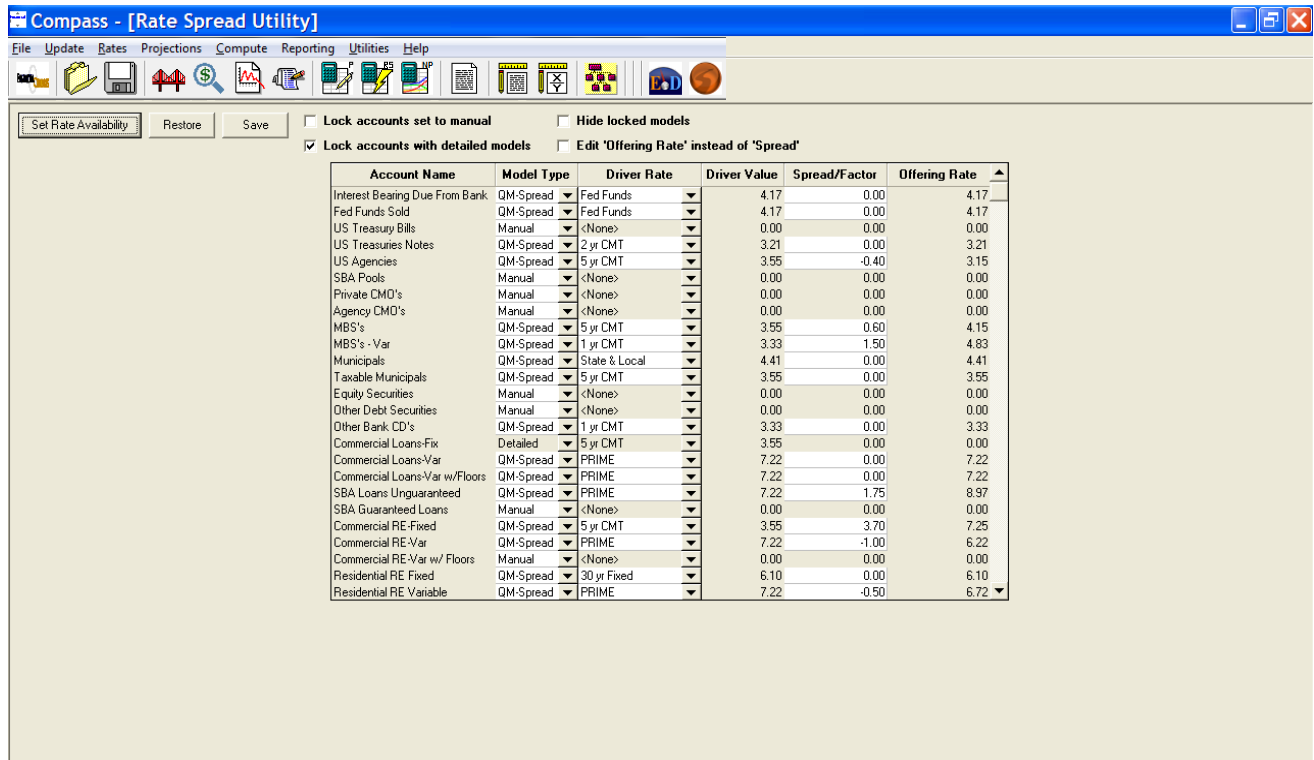
Rates not Current

Rates are Current

You may also input your own rate forecast, one month at a time, or by range. Quick Edit choices appear whenever you select more than one month in any rate column. In addition, if you input the last month's actual rate, then a quarterly or annual forecast separated by zeros, Compass will fill in the blanks when you click the Fill in the Gaps button.

RATE SPREAD UTILITY

Sometimes it is easier to set Offering Rates when all the rates can be seen at a glance. The **Rate Spread Utility** provides exactly this ability. You can find this new feature in the Menu bar under the Rates option.



The Rate Spread Utility Screen

You will quickly see that all your accounts are viewed in one place with the ability to change driver and spread relationships in several locations at once. There are several sub-utilities that allow you to lock (prevent inadvertent changes) the complex pricing models you have set and edit only those you want to change.

<input type="checkbox"/> Lock accounts set to manual	<input type="checkbox"/> Hide locked models
<input checked="" type="checkbox"/> Lock accounts with detailed models	<input type="checkbox"/> Edit 'Offering Rate' instead of 'Spread'

1. Lock accounts set to manual - does not permit editing pricing set manually.
2. Lock accounts with detailed models - does not permit editing of Offering Rate models by mistake.
3. Hide locked models – removes locked models from view here.
4. Edit 'Offering Rate' instead of 'Spread' – change rate, not spread to driver.

Setting Rate Availability on Driver Rate Screen

From the Rate Spread Utility Screen you can set the Driver Rates that you want to see in the Driver Rate column. This helps avoid clutter. If you do not use all of the Driver Rates available to you, then suppress them to shorten the list.

Rate Selections

The Compass program can be customized to provide additional levels of operational efficiency. This utility is used to reduce the number of available rates to a manageable size. Place check marks next to the rates that you want to use and remove the check marks from the rates you do not need. You can use this utility at any time to add or remove rates as your needs change.

Account Name	Model Type	Driver Rate	Driver Value	Spread/Factor	Offering Rate
Interest Bearing Due From Bank	QM-Spread	Fed Funds	4.17	0.00	4.17
Fed Funds Sold	QM-Spread	Fed Funds	4.17	0.00	4.17
US Treasury Bills	Manual	<None>	0.00	0.00	0.00
US Treasuries Notes	QM-Spread	2 yr CMT	3.21	0.00	3.21
US Agencies	QM-Spread	5 yr CMT	3.55	-0.40	3.15
SBA Pools	Manual	<None>	0.00	0.00	0.00
Private CMO's	Manual	<None>	0.00	0.00	0.00
Agency CMO's	Manual	<None>	0.00	0.00	0.00
MBS's	QM-Spread	5 yr CMT	3.55	0.60	4.15
MBS's - Var	QM-Spread	1 yr CMT	3.33	1.50	4.83
Municipals	QM-Spread	State & Local	4.41	0.00	4.41
Taxable Municipals	QM-Spread	5 yr CMT	3.55	0.00	3.55
Equity Securities	Manual	<None>	0.00	0.00	0.00
Other Debt Securities	Manual	<None>	0.00	0.00	0.00
Other Bank CD's	Manual	<None>	0.00	0.00	0.00
Commercial Loans-Fix	Manual	<None>	0.00	0.00	0.00
Commercial Loans-Var	Manual	<None>	0.00	0.00	7.22
Commercial Loans-Var w/F	Manual	<None>	0.00	0.00	7.22
SBA Loans Unguaranteed	Manual	<None>	1.75	8.97	8.97
SBA Guaranteed Loans	Manual	<None>	0.00	0.00	0.00
Commercial RE-Fixed	Manual	<None>	3.70	7.25	7.25
Commercial RE-Var	Manual	<None>	-1.00	6.22	6.22
Commercial RE-Var w/ Flo	Manual	<None>	0.00	0.00	0.00
Residential RE Fixed	Manual	<None>	0.00	6.10	6.10
Residential RE Variable	Manual	<None>	-0.50	6.72	6.72

Rate Selections

☒ Fed Funds ☒ 2 yr CMT ☒ 25 yr +
☒ 3 mo Tbill ☒ 3 yr CMT ☒ PRIME
☒ 6 mo Tbill ☒ 5 yr CMT ☒ 1 mo LIBOR
☒ 1 yr CMT ☒ 10 yr CMT ☒ 3 mo LIBOR

OK Cancel

Click on the Set Rate Availability button at the top left of the Rate Spread Utility Screen and you will see a list of Driver Rates. Check the rates you would like to see displayed in the drop down boxes under Driver Rate.

Setting Your Offering Rates

You can set simple Offering Rate models by selecting from a few basic options:

Account Name	Model Type	Driver Rate	Driver Value	Spread/Factor	Offering Rate
Interest Bearing Due From Bank	QM-Spread	Fed Funds	4.17	0.00	4.17
Fed Funds Sold	QM-Spread	Fed Funds	4.17	0.00	4.17
US Treasury Bills	Manual	<None>	0.00	0.00	0.00
US Treasuries Notes	QM-Spread	2 yr CMT	3.21	0.00	3.21
US Agencies	QM-Spread	5 yr CMT	3.55	-0.40	3.15

1. Model Type (Manual, Spread to Driver or Factor (Multiple of Driver)
2. Driver Rate (select from drop down)
3. Driver Value (given by Compass)
4. Spread or Factor to be used
5. The resulting Offering Rate

The Restore Button allows you to start over if you have not saved your changes.



ACCOUNT PROJECTIONS

The Account Projections is the heart of Compass. This screen allows you to model the growth, pricing, income and expense of the balance sheet and income statement. Compass's powerful modeling functions provide the engine for measuring interest rate risk as well as convenient re-forecasting mechanisms as the interest rate environment changes. A thorough understanding of the Account Projections is the foundation for understanding the entire Compass system.

THE ACCOUNT PROJECTIONS SCREEN

Manual / Modeling Function Buttons

Click Here To View Start of Current Year

Chart of Accounts

Manual / Modeling Function Buttons

History

Projections

Scroll Up For More History

Scroll Down For More Projections

Projection Summary and Chart

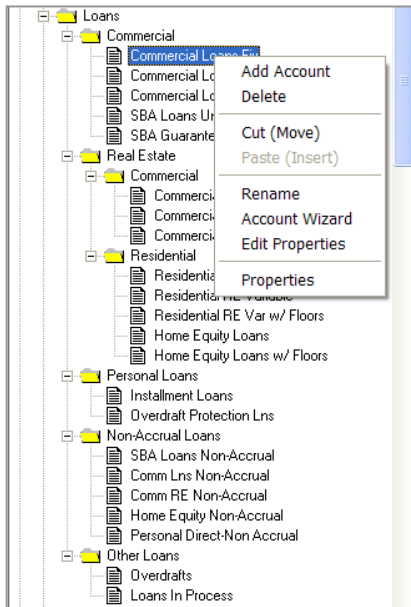
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2007	43,952	43,930	43,907	42,894	43,899	43,538	43,009	42,484	41,473	40,462	39,953	38,943
2008	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943
2009	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943
2010	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943
2011	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943	38,943

You can project the account balances manually or with the aid of Growth Models, investigate maturities and repricings, compare projections to budget and even write notes to support assumptions, all from this screen. The following pages provide a deeper look into the power of the Account Projections and its many functions.

ACCOUNT EDITOR

This screen, or portion of the screen, lets you move around your accounts. More than that, however, this is where you perform several other useful functions.

To reveal the many account options, just *right* click on any account. Let's review these options:



Add Account will add an account to the chart. Select this option and follow the Account Wizard to establish the account's behavior.

Delete removes the account and its data from the system permanently. Once you delete an account, all of its data will be lost unless you exit the plan without saving changes.

Cut (Move) is used to relocate accounts to another area of the chart.

Paste (Insert) will place the account at the cursor location.

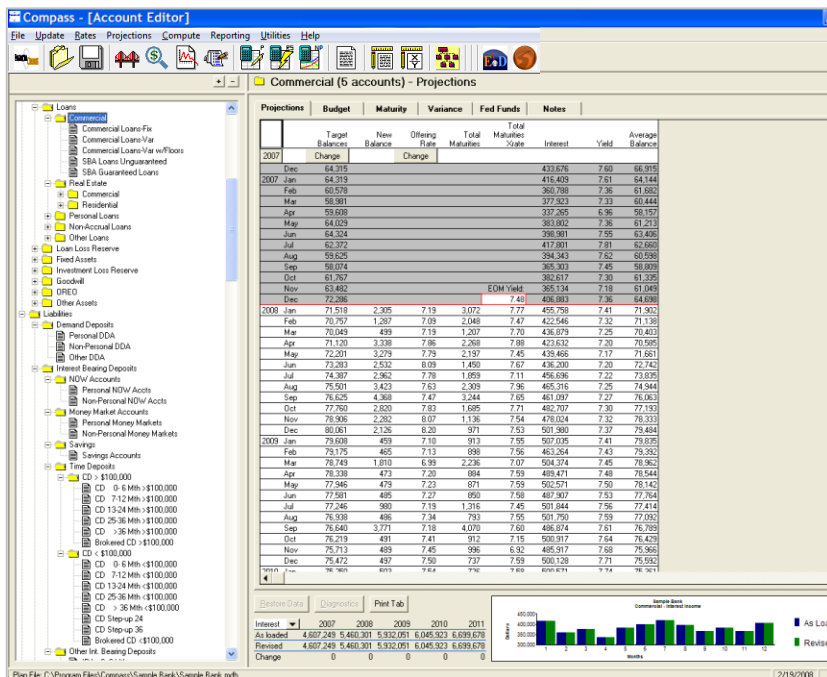
Rename allows the user to rename an account. Account names can also be changed in the Account Wizard or Edit Properties functions. To rename folders, right click the folder title button and select Rename.

Account Wizard walks the user through all of the account properties.

Edit Properties is used to view the major aspects of the account and permits changes, but it is recommended that the Account Wizard be used to ensure that all attributes are logical.

Properties lists the active properties of the account. To change properties, use the *Account Wizard* where all property options are made available.

SUMMARIZING ACCOUNTS



To see totals for groups of accounts, simply click on the folder that contains the accounts or folders you would like to see summarized.

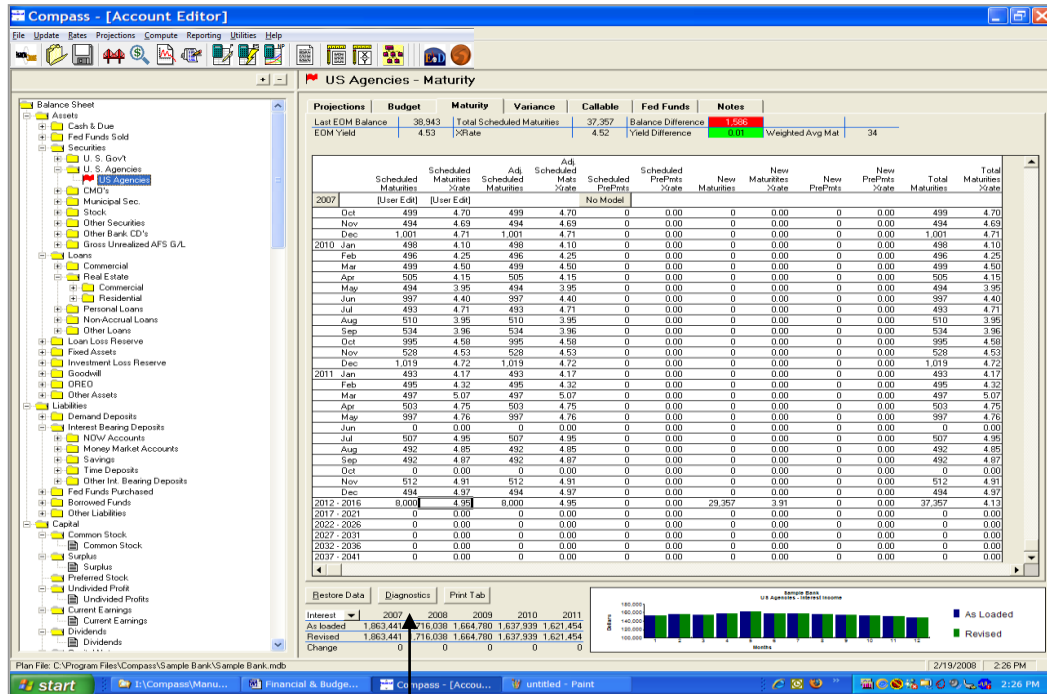
In the example on the left, we have highlighted Commercial Loans. In the account screen we have all the data for the 5 accounts with this folder.

This operation can be performed at any level within the account structure, up to Total Assets. At this point, the user can investigate other tabs and can apply models that will alter all the accounts within the chosen category.

Assumption Validation Feature - Red Flags



Red Flags next to an account name indicate that a logic or data error exists within the account. This feature is critical to model and assumption validation requirements for Risk Compliance.



Diagnostic Button

The Diagnostics Button tells us the cause of the error. Compass provides several diagnostic messages to help the user locate potential issues that would cause errors in the simulation results:

Account Editor - Diagnostics

Zero Rate on New Balances

Print

Ok

The **Zero Rate** diagnostic informs you that there are forecasted balances without a rate. To clear the red flag, manually enter the rate. There are four types of rates that could be affected: the offering rate in the Projections tab, the scheduled maturity xrate in the Maturity Tab, and the new repricing rate as well as the scheduled repricing xrate in the Repricing Tab.

Negative New Balances is an issue with the forecasted balance sheet. This type of an account needs to have its balance reductions reflected **ONLY** in the form of maturities. To have the balances go down faster than the scheduled payments, adjust the scheduled maturities in the Maturity Tab or add a prepayment model.

Account Editor - Diagnostics

Negative New Balances

Print

Ok

Account Editor - Diagnostics

Scheduled Maturities do not match the last EOM Balance

Print

Ok

Here, the sum of the maturities does not equal the EOM balance. The diagnostics message stating that the **Scheduled Maturities do not match the last EOM Balance** prompts the user to look at the Maturity Tab to review the maturity schedule and correct the error.

If you check the Fix Small Maturity Imbalance in the **DataBridge Settings** dropdown menu, The default is to adjust for a difference of 2% or less for accounts whose EOM balance exceeds \$250M and 5% or less for accounts with balances less than or equal to \$250M. You can also define a custom **Small Imbalance Threshold** in **Utilities, DataBridge Settings**.

The red flag generated from **Repricing Bals exceed EOM or are less than EOM minus Sched Mats** causes the most confusion because the error results from the analysis of three separate pieces of information. The last EOM Balance is compared to the Scheduled Repricings as well as the Scheduled Maturities to make sure all pieces fit together.

Projections		Budget	Maturity	Repricing	Variance	Fe
	EOM Balance	New Balance	Offering Rate	Total Maturities	Total Maturities Xrate	
2007	Quick		Quick			
Aug	2,196					
Sep	2,761				EOM Yield:	
Oct	2,728				6.85	
Nov	2,801	173	7.60	100	6.64	
Dec	2,875	156	7.53	81	6.52	
2008 Jan	2,952	156	7.47	79	6.51	
Feb	3,031	180	7.40	101	6.73	

In this example, a Commercial Adj. account with a last EOM balance of \$2,728 should have Scheduled Maturities of \$2,728, just as the general ledger and loan application should be in balance. Since the account is adjustable, you will also be downloading Scheduled Repricings to the account.

Compass will import repricing data into the Scheduled Repricings columns as far out as the First Time to repricing period goes. The Account Properties Editor for Commercial Adj below has a First Time to repricing of 36 months. That means that only repricing out the next 36 months will be imported during the monthly update process. Any repricings beyond that date will not be downloaded.

The comparison of the Scheduled Repricing data is more involved. In theory, the account's Repricing Balances should match the last EOM balance, as the entire portfolio should be scheduled to reprice at some time in the future. The only variable to take into account would be the Scheduled Maturities. If loan is scheduled to reprice a year from now, but the borrower is making monthly principal payments, then the amount available to reprice at that future date could be lower than the current principal. Your Compass model takes this into account.

Two tests are performed to determine if a Repricing Balances red flag for **Repricing Bals exceed EOM or are less than EOM minus Sched Mats** will be displayed. The first test is to make sure that the Scheduled Repricings do not exceed the last EOM balance in the account. Using the previous Commercial Adj. account as an example, we see the EOM balance last month of \$2,728. Using the Calc. Total, Avg & Trend by highlighting the group of cells and right-clicking to display, you can easily check that the Total Scheduled Repricings equals \$1,808. The first test has been met. The amount of Scheduled Repricings does not exceed the last EOM balance.

Projections		Budget	Maturity
	Scheduled Repricings	Scheduled Repricings %Rate	Repric R
2007	[User Edit]	[User Edit]	Quick
Feb	0	0.00	7
Mar	0	0.00	7
Apr	0	0.00	7
May	231	7.25	7
Jun	0	0.00	7

Range Calculation Results		
Total:	1,808	Ok
Average:	32.29	
Trend:	0.60	

Account Properties Editor - Residential RE Adj

Name/Abbreviation: Residential RE Adj

Risk Based Capital factor: 50%

Custom RBC factor: 0

Cost factor: 0

Payment frequency: Monthly

Tax status: Taxable

Accrual method: 30/360

Average term for new transactions (months): 240

Amortization method: Level amortization

First Time to repricing (months): 36

Next Time to Repricing (months): 12

Absolute floor (%): 6.5 Ceiling: 12

Relative floor (%): 50 Ceiling: 50

Periodic cap (%): 2

Balloon due (months): 0

For the second test, the amount of Scheduled Repricings must not be lower than the last EOM balance less the Scheduled Maturities for the First Time to repricing. Remember that a loan that has a principal balance of \$1,000 today may not have the same principal balance in the future when it comes time for repricing. To check this data, you will first need to check the initial repricing period. This can be viewed in the Account Wizard or by selecting Edit Properties.

May	45	6.38
Jun	45	6.35
Jul	44	6.35
Aug	44	6.35
Sep	44	6.35
Oct	44	6.35
Nov	44	6.35
Dec	44	6.35
2010 Jan	44	6.35
Feb	44	6.35
Mar	51	6.55
Apr	45	6.36
May	45	6.35
Jun	45	6.35
Jul	45	6.35
Aug	45	6.35
Sep	45	6.36
Oct	45	6.36

Range Calculation Results		
Total:	1,675	Ok
Average:	46.52	
Trend:	-0.15	

In this Residential RE Adj. account example, the first time to reprice is set to 36 months. The minimum amount of repricings needs to be the last EOM balance of \$10,406, minus the amount of maturities over the First Time to repricing period (36 months) of \$1,675 (Use the Calc. Total, Avg & Trend again). Thus, the minimum amount of repricings should be $\$10,406 - \$1,675 = \$8,731$.

Dec	0	0.00
2011 Jan	0	8.00
Feb	0	0.00

Range Calculation Results		
Total:	7,433	Ok
Average:	132.74	
Trend:	-6.26	

Total Scheduled Repricings

If you have a red flag, it's quite possible that the portfolio has accounts that reprice beyond the defined First Time to repricing. You can test this by extending the First time to repricing out further to 72 months and try rerunning the DataBridge download. You can then go to the Account Projections and see what repricing balances come in. If you have repricing balances that download to further buckets, you may want to consider changing the First time to repricing in the Account Wizard. Please be careful to note the original settings in the Account Wizard or do not save changes if you run this test.

Scheduled Maturities Next 36 Months

Running the Calc. Total, Avg & Trend to add up the Scheduled Repricings shows only \$7,433 has been downloaded. The minimum needed is \$8,731. The result is a red flag, as the minimal amount of repricings is not met.

ACCOUNT TABS

The data for each account is substantial so Compass organizes the data into convenient, logical subsets under tabs within each account and category folder. Use these tabs to view different sets of account data. The tabs are as follows:

Projections Tab: Contains the projected data for each account or category folder. This is where the user forecasts balances and models rates in the EOM Balance and Offering Rate columns, respectively.

Budget Tab: Contains the locked budgeted information for balances, interest and yields.

Maturity Tab: Contains the contractual maturity data from your download file as well as the calculated prepayments and prepayment models.

Repricing Tab: Displays the actual and simulated repricing information including volumes and new rates. This tab only appears if the account is set up to have repricing such as ARM loans.

Variance Tab: Compares the actual and projected balances and interest of a specific account or category against the data stored in your locked budget.

Callable Tab: Tracks callable securities and borrowings by CUSIP.

Notes Tab: Make notes here to explain account projections for later reference.

FORECASTING: APPLYING MANUAL EDITS AND GROWTH MODELS TO EOM BALANCES

Commercial Fixed - Projections									
Projections Budget Maturity Variance Fed Funds Notes									
	EOM Balance	New Balance	Offering Rate	Total Maturities	Total Maturities %Rate	Interest	Yield	Average Balance	
2008	Manual	[User Edit]	Manual					[User Edit]	
Jul	27,114					178,292	8.06	26,032	
Aug	25,966					190,492	8.12	27,235	
Sep	10,618					83,432	9.68	10,490	
Oct	11,862					80,181	8.71	10,836	
Nov	10,683					EOM Yield: 82,672	9.50	10,589	
Dec	10,965					81,283	8.98	10,517	
2008 Jan	10,965	138	6.66	138	8.63	82,434	8.73	10,965	
Feb	10,965	157	7.66	157	8.98	76,339	8.71	10,965	
Mar	10,965	591	7.66	591	8.35	81,970	8.68	10,965	
Apr	10,965	184	7.66	184	8.64	79,055	8.65	10,965	
May	10,965	195	7.66	195	8.64	81,497	8.63	10,965	
Jun	10,965	222	7.71	222	8.73	78,672	8.61	10,965	
Jul	10,965	356	7.77	356	8.75	81,052	8.58	10,965	
Aug	10,965	196	7.83	196	8.59	80,954	8.56	10,965	
Sep	10,965	575	7.92	575	9.83	77,761	8.51	10,965	
Oct	10,965	306	8.01	306	8.45	79,823	8.45	10,965	
Nov	10,965	270	8.11	270	8.60	77,156	8.44	10,965	
Dec	10,965	351	8.20	351	9.07	79,560	8.43	10,965	

The Projections tab is where forecasting is performed, models are built and instantaneous calculations are made in response to change.

This view shows the major elements of recent history in gray and five years of forecasted data. Below the column headings of EOM Balances and Offering Rates are the options that define user input and modeling. [User Edit] indicates that the user can manually change the data.

Compass maintains correct mathematical relationships between the elements of each balance sheet account to accurately reflect real life. This mathematical relationship automatically solves for the New Balances required when you input EOM Balances and solves for EOM Balances if the user is giving New (monthly additions) Balance forecasts. Here are the equations depending on the item being forecasted.

Solving for the New Balance

New Balance = EOM Balance – (Previous Month's EOM Balance – Maturing Balances)

Caution: If the scheduled maturities exceed the current EOM balances, the New Balance for Maturing Accounts becomes negative (a logic error) and you will have to rethink your forecast.

Solving for the EOM Balance

EOM Balance = Previous Month's EOM Balance – Maturing Balances + New Balance

This relationship is critical to understanding the modeling function. One of the goals of the model is to ensure that all actions are mathematically correct and consistent with real world events. When a planner expresses an action, the model must carry that action throughout the Projections.

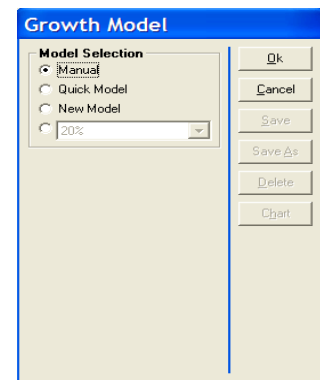
Under this methodology, it is possible for the planner to express a balance that forces a negative new balance in a future month. This may be acceptable for non-maturing balances such as Fed Funds or Savings accounts. However, for maturing balance categories such as loans, this is clearly an inaccurate expression since it indicates that the decline in balances from month to month is greater than the Scheduled Maturities. Some systems simply set the new balances to zero; Compass leaves the negative new balance condition and sets up a Red Flag to alert the user. This gives the planner the option to consider the appropriate action. Setting a new balance to zero may produce results contrary to the planner's ideas for future growth.

The only way that EOM Balances can decline faster than Scheduled Maturities is for customers to prepay (or redeem early). This possibility should be reflected in a prepayment model. Sometimes, an EOM Balance decline can be forecasted because of a specific event (like a major loan refinance) that is difficult to express in a prepayment model. In that case, the best approach is to adjust the Scheduled Maturities, moving the amount in the Scheduled (contractual) Maturity month(s) to an earlier month.

HOW TO ESTABLISH FORECASTS

Pressing the **Manual** button under EOM Balances provides the user three model selections from which to forecast EOM balances: Manual, Quick Model and New Model. This button will change between *Manual* and *Modeled* depending on user selection.

The use of Manual mode to forecast EOM Balances allows the user to enter specific balances that will remain the same until manually revised. This is referred to as a "static" forecast. Whereas, applying a **Growth Model** by either selecting a Quick or New Model, the EOM balances are re-forecasted after each download, thus creating a "rolling" forecast.



Manual Mode

This mode allows the user to directly enter data for each month, directly or through the use of *Quick Edits*. Remember, selecting the Manual button on the pop up menu and clicking the OK button sets the forecasting method to **Manual Mode**. Once in Manual Mode, making changes to the account forecast is much like using a spreadsheet. That is, simply move the cursor to the cell you want to change and type the new value. Compass also includes specialized editing methods (Quick Edits) to make data revisions easy.

Projections	Budget	Maturity	Variance	Fed Funds	Notes	
	EOM Balance	New Balance	Offering Rate	Total Maturities	Total Maturities XRate	Average Balance
	Manual	[User Edit]	Manual			[User Edit]
2008						
Jul	27,114				178,292	8.06
Aug	25,966				190,432	8.12
Sep	10,618				83,432	9.68
Oct	11,862				80,181	8.71
Nov	10,683				82,672	9.50
Dec	10,965				81,283	8.98
2009						
Jan	10,965	130	6.66	130	8.63	82,434
Feb	10,965	157	7.66	157	8.98	76,339
Mar	10,965	591	7.66	591	8.35	81,370
Apr	10,965	184	7.66	184	8.64	79,055
May	10,965	195	7.66	195	8.64	81,437
Jun	10,965				81,437	8.63
Jul	10,965				81,437	8.63
Aug	10,965				81,437	8.63
Sep	10,965				81,437	8.63
Oct	10,965				81,437	8.63
Nov	10,965				81,437	8.63
Dec	10,965				81,437	8.63
2009						
Jan	10,965				81,437	8.63
Feb	10,965				81,437	8.63
Mar	10,965				81,437	8.63
Apr	10,965				81,437	8.63
May	10,965				81,437	8.63
Jun	10,965				81,437	8.63
Jul	10,965				81,437	8.63
Aug	10,965				81,437	8.63
Sep	10,965				81,437	8.63
Oct	10,965				81,437	8.63
Nov	10,965				81,437	8.63
Dec	10,965				81,437	8.63

Quick Edit Options

The **Quick Edit** feature provides greater power with several shortcut and calculation aides. This feature is only available when the column is set to "Manual" or "User Edit". Activate the Quick Edit by highlighting any range of cells and then clicking the right mouse button. The option menu offers several selections including Quick Edit, Clear, Copy, Paste, and Calculate Total, Average and Trend of the highlighted data. Select Quick Edit and the following options become available:

Constant: Places a constant value in each highlighted cell; takes the value from the input box.

Annual growth rate Growth rates are always expressed as annual rates. When you place a growth rate in the input box, Compass will use 1/12 of this value to grow each highlighted month from the previous month's value.

Ramp to a value: This option allows the user to target a specific amount in a future month by evenly dividing the monthly growth from a starting to the ending value. The first highlighted value will be the starting point and the last highlighted cell will contain the value stated in the **Ramp to:** box. The cells between these two will grow incrementally. This is handy if you know your ending goal.

Ramp from/to a value: Same as above except that you can set both the starting point and the ending point. Compass evenly divides the values in between.

Offset. This function will add/subtract the specified amount to/from the existing number in each highlighted cell. Use a - sign to subtract an amount.

Aggregating Offset.: This is similar to the Offset except that the amount will compound each month. For example, if the Aggregating Offset is 100, then the first highlighted month will be increased by 100, the second by 200, the third by 300 and so forth.

Distribute (replace existing). This option works much like the Offset option except it *replaces* the values in each cell. If you know a total amount and want that amount to be spread over several months, then this option will perform that function. For example, if the known total growth will be 770 for the next 7 months (the highlighted months), this option would place 110 in each month.

Distribute (as offset). This is the same function as above but instead of replacing the value, it adds (or subtracts) the calculated value to/from the existing values in each cell.

Quick Model Mode

This allows the user to quickly enter an annual growth rate. For example, an annual growth rate of 12% grows the EOM balances by 1% per month for the next 5 years. Similarly, to grow a balance by 2% per month, the user would enter an annual growth rate of 24%.

EOM balances are re-forecasted with each new download. Compass recalculates the forecast by applying the annual growth rate to the last month's balance from the monthly download. This continuous re-forecasting of future EOM balances creates a rolling forecast. Keep in mind that as EOM Balances are re-forecasted so is the New Balance column.

New Model Mode

Projections	Budget	Maturity	Variance	Fed Funds	Notes
	EOM Balance	New Balance	Offering Rate	Total Maturities	Interest
2008	Manual	[User Edit]	Manual		
Jul	27,114			178,292	8.06
Aug	25,966			190,492	8.12
Sep	10,618			83,452	9.68
Oct	11,862			90,181	8.71
Nov	10,683			82,672	9.50
Dec	10,965			81,293	8.98
2008 Jan	10,965	138		8,73	10.96
Feb	10,965	157		8,71	10.96
Mar	10,965	591		8,68	10.96
Apr	10,965	184		8,65	10.96
May	10,965	195		8,63	10.96
Jun	10,965	222		8,61	10.96
Jul	10,965	356		8,58	10.96
Aug	10,965	136		8,56	10.96
Sep	10,965	575		8,51	10.96
Oct	10,965	306		8,45	10.96
Nov	10,965	270		8,44	10.96
Dec	10,965	351		8,43	10.96
2009 Jan	10,965	362		8,40	10.96
Feb	10,965	230		8,39	10.96
Mar	10,965	231		8,39	10.96
Apr	10,965	211		8,39	10.96
May	10,965	249		8,39	10.96
Jun	10,965	215		8,40	10.96
Jul	10,965	213		8,42	10.96
Aug	10,965	214		8,42	10.96
Sep	10,965	297		8,42	10.96
Oct	10,965	214		8,42	10.96
Nov	10,965	311		8,43	10.96
Dec	10,965	260		8,43	10.96

Model Selection

☐ Manual
 ☐ Quick Model
 ☒ New Model

Ok

Cancel

Save

Save As

Delete

Chart

Growth Rate

Jan

1.00

Feb

1.00

Mar

1.00

Apr

1.00

May

3.00

Jun

3.00

Jul

3.00

Aug

3.00

Sep

1.00

Oct

1.00

Nov

1.00

Dec

1.00

New Model Mode allows the user to apply a more detailed model that could exist due to seasonality or other prevailing market conditions. In this mode, users are able to specify growth rates per month. Models can be *saved*, *named* and applied to other accounts by selecting *save as*. Once saved, this model can be selected while in another account by using the fourth radio button and choosing the named model from the drop down menu.

As with the Quick Model, EOM Balances under the New Model mode are continually re-forecasted with each new download. Remember, as EOM Balances are re-forecasted so is the New Balance column.

FORECASTING WITH TREND DATA

The trending function is particularly useful when forecasting. To determine a trend, highlight a range for which the trend is desired (typically a period of history), click the right mouse button and select Calc. Total, Avg. & Trend. Compass will display statistics about the selected range. The *Trend* is the average dollar change per month. By hitting the OK button, the trend is stored so that it can be applied to another range of data.

To apply the trend, select a new range in the projected months, hit the right mouse button and select **Apply Trend** from the option list. The trend will be applied to each month highlighted as an Aggregating Offset option.

The Trend data also appears at the bottom of the Quick Edit list. Another technique for applying the trend is to select the Aggregating Offset Option and use the Trend Value as the amount.

Either method produces the same results; however, you must have a valid starting point before applying a trend.

Projections	Budget	Maturity	Variance	Fed Funds	Dept View	Notes
	EOM Balance	New Balance	Offering Rate	Total Maturities	Interest	Yield
2005	Manual	[User Edit]	Manual			
Jul	14,448			97,966	8.27	13,983
Aug	4,725			26,565	6.71	4,673
Sep	4,195			23,016	6.63	4,233
Oct	4,171			23,554	6.70	4,153
Nov	4,598			25,743	6.79	4,624
Dec	4,597			24,927	6.65	4,425
2006 Jan	4,745			26,797	6.71	4,701
Feb	4,949			25,678	6.72	4,979
Mar	5,094			28,958	6.71	5,081
Apr	5,409			28,126	6.34	5,396
May	5,466			30,889	6.74	5,396
Jun	5,388			29,843	6.73	5,396
Jul	5,861			32,859	6.76	5,724
Aug	6,076			35,012	6.84	6,031
Sep	6,487			35,839	6.89	6,330
Oct	6,347			36,910	6.92	6,283
Nov	6,321			35,774	6.90	6,308
Dec	5,466			30,889	6.74	5,396
2006 Jan	6,895	1,967	8.83	549	5.87	37,014
Feb	7,004	305	9.00	196	7.12	39,403
Mar	7,122	294	9.07	176	7.17	44,839
Apr	7,241	287	9.13	168	7.23	44,529
May	7,360	299	9.20	180	7.33	47,230
Jun	7,579	394	8.35	175	7.27	47,127
Jul	7,697	320	9.19	201	7.35	50,178
Aug	7,829	308	9.05	176	7.40	51,414
Sep	7,960	318	9.05	187	7.37	50,980
Oct	8,093	482	9.10	349	7.26	54,077
Nov	8,226	324	9.04	191	7.56	53,686
Dec	8,359	313	9.04	180	7.64	56,746
2007 Jan	8,618	461	9.20	202	7.71	58,500
Feb	8,734	327	9.20	211	7.65	54,424
Mar	8,852	338	9.17	220	7.66	61,466
Apr	8,971	308	9.13	189	7.84	60,601
May	9,092	328	9.10	207	7.87	63,771

Range Calculation Res...

Total:

67,569

Average:

5,630.75

Trend:

128.19

Ok

PRICING MODELS

How to Establish Pricing Models

By selecting the Manual button under the Offering Rate column, the user has three model selections from which to establish an account's Pricing Model: Manual, Quick Model and New Model. This button will change between *Manual* and *Modeled* depending on user selection.

Manual Mode

This mode allows the user to directly enter rates for each month, directly or through the use of *Quick Edits*. Remember, selecting the Manual button on the pop up menu and clicking the OK button sets the Offering Rate method to **Manual Mode**. Once in Manual Mode, making changes to the Offering Rates is much like using a spreadsheet. That is, simply move the cursor to the cell you want to change and type the new value.

Commercial Fixed - Projections									
Projections	Budget	Maturity	Variance	Fed Funds	Notes				
	EOM Balance	New Balance	Offering Rate	Total Maturities	Total Maturities XRate	Interest	Yield	Average Balance	
2008	Manual	[User Edit]	Manual					[User Edit]	
Jul	27,114					178,292	8.06	26,032	
Aug	25,966					190,492	8.12	27,235	
Sep	10,618					83,492	9.68	10,490	
Oct	11,862					80,181	8.71	10,836	
Nov	10,683					EOM Yield: 82,672	9.50	10,589	
Dec	10,965					81,283	8.98	10,517	
2008 Jan	10,965	138	6.66	138	8.63	82,434	8.73	10,965	
Feb	10,965	157	7.66				8.71	10,965	
Mar	10,965	591	7.66				8.68	10,965	
Apr	10,965	184	7.66				8.65	10,965	
May	10,965	195	7.66				8.63	10,965	
Jun	10,965	222	7.71				8.61	10,965	
Jul	10,965	356	7.77				8.58	10,965	
Aug	10,965	196	7.83				8.56	10,965	
Sep	10,965	575	7.92				8.51	10,965	
Oct	10,965	306	8.01	306	8.45	79,823	8.45	10,965	
Nov	10,965	270	8.11	270	8.60	77,156	8.44	10,965	
Dec	10,965	351	8.20	351	9.07	79,560	8.43	10,965	

You can also use the **Quick Edit** options to enter rates. Activate the Quick Edit by highlighting any range of cells and then right click the mouse to view these options. The previous sections discuss how to apply the various Quick Edit options.

Quick Pricing Models

The **Quick Model Mode** allows the user to quickly express a relationship. For example, set a spread to a driver (such as 1% over Prime) for a quick pricing model. When the objective is to build a non-linear relationship, then the Modeled Mode is the best choice.

Using the Quick Model to set the Offering Rate automatically calculates the Offering Rate. The user simply sets a constant spread or factor (percentage) to a driver rate. Each time the driver rate changes, the Offering Rate will automatically change. While this is simple and convenient, it is important that the planner appreciates the extent to which this approach expresses management behavior as rates change. Please note that the Offering Rate only applies to New Balances on accounts with maturities.

New Pricing Models

The **New Model Mode** expands the simple single spread approach used in Quick Models to fine-tune the relationship over several driver rate levels. This is sometimes referred to as a Non-Linear model. The New Model Mode is a powerful modeling system built around the basic concept of a relationship between a Driver (outside influence) and the Offering Rate or price (your response). This relationship may be simple or complex.

In this example, the spread between the 5-year CMT and the Offering Rate changes as the 5-year CMT changes. Compass interpolates between rate levels. You can also set ceilings and floors or even step the relationship if desired. To help visualize what has been expressed in this model, click on the **Chart** button and a graph of the Driver/Offering (Modeled) Rate appears.

Pricing Model

Model Selection

☐ Manual
☐ Quick Model
☐ New Model
☒ 5 Yr CMT + 2.5% FLr None

Driver: 5 yr CMT

January Rate: 3.55 %

Time Lag: 0 Months

Current Price: 7.00 %

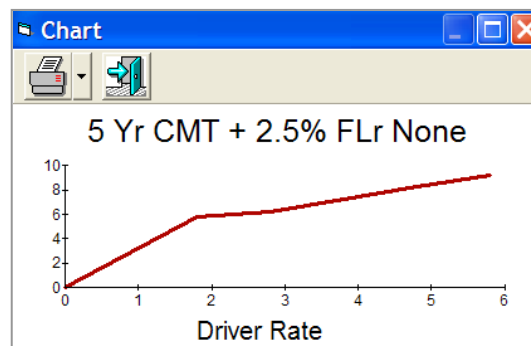
Calc: Spread

Edit: Spread/Factor

Create A Promotion

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	0.00	0.00
B	1.80	3.95	5.75
C	2.80	3.45	6.25
D	3.80	3.45	7.25
E	4.80	3.45	8.25
F	5.80	3.45	9.25

Add Insert Delete Clear



Normally, the relationship between the Driver and the Offering Rate is expressed as a **Spread** (adding or subtracting an amount from the Driver to get the Rate). Another option is to use a **Factor**. A factor multiplies the driver by an amount rather than adding or subtracting. This produces a “speed” or rate of change between a driver and a rate. For example, if your savings rate typically goes up about ¼% for every 1% change in Prime, you could model this as a 25% factor of Prime. (Factors are input as decimals, so you would enter 25% as .25.) To model by factor, change the **Calc** mode from Spread to Factor.

You can also choose to solve for the spread rather than the rate by changing the **Edit** mode from **Spread** to **Modeled Rate**. You can then construct a model by asking, “If Prime were __%, what would we charge for this loan or pay on this deposit”.

The **Time Lag** Function in Compass is designed to allow the user to administer rates in their rate forecast. This is accomplished by setting the lag option in the Offering Rate models. The lag period is a monthly value and affects the Driver Rate, not the Offering Rate. This means that your Offering Rate model will reference the Driver Rate including any lag period.

Pricing Model

Model Selection

☐ Manual
☐ Quick Model
☐ New Model
☒ Savings Rate

Driver: PRIME

August Rate: 6.25 %

Time Lag: 1 Months

Current Price: 0.50 %

Calc: Spread

Edit: Modeled rate

Create A Promotion

Seg.	Driver	Rate	Spread
C	1.00	0.10	-0.90
D	3.99	0.10	-3.89
E	4.00	0.25	-3.75
F	6.24	0.25	-5.99
G	6.25	0.50	-5.75
H	9.99	0.50	-9.49
I	10.00	0.75	-9.25

Buttons: Add, Insert, Delete, Clear

In this example, the Savings Rate model includes a one month lag to Prime Rate. For forecasting purposes, the model will use the Prime Rate as of one month prior. Notice the modeling calls for a price change to 25 BPS when Prime goes below 6.25%. When the one-month lag is included in the model, the Savings Rate will not change to 25 BPS until one month after Prime Rate goes below 6.25%. (This may not be the best scenario when rates decline as the lag is applied in the same manner if rates are increasing or decreasing.)

Please notice that the Prime Rate goes down to 6% in the month of September 2008. Applying the one-month lag to this forecast will change the Offering Rate on Savings to 25 BPS one month after Prime goes down or not until October.

Rate Forecast Screen

		3 mo Tbill	6 mo Tbill	1 yr CMT	2 yr CMT	3 yr CMT	5 yr CMT	10 yr CMT	25 yr +	PRIME
2008	Jan	2.75	2.75	2.71	2.48	2.51	2.98	3.74	4.33	6.98
	Feb	2.75	2.75	2.71	2.48	2.51	2.98	3.74	4.33	6.98
	Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Apr	2.75	2.75	2.71	2.48	2.51	2.98	3.74	4.33	6.98
	May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Jul	2.25	2.25	2.20	2.15	2.20	2.50	3.50	4.00	6.25
	Aug	2.25	2.25	2.20	2.15	2.20	2.50	3.50	4.00	6.25
	Sep	2.25	2.25	2.20	2.15	2.20	2.50	3.50	4.00	6.00
	Oct	2.25	2.25	2.20	2.15	2.20	2.50	3.50	4.00	6.00
	Nov	2.25	2.25	2.20	2.15	2.20	2.50	3.50	4.00	6.00
	Dec	2.25	2.25	2.20	2.15	2.20	2.50	3.50	4.00	6.00

Here, we see the Offering Rate going to 25 BPS in October 2008:

Projections		Budget	Variance	Fed Funds	Notes		
		EOM Balance	New Balance	Offering Rate	Expense	Cost	Average Balance
2008		Quick		Modeled			
	Dec	20,488			8,396	0.49	20,194
2008	Jan	21,135			8,525	0.49	20,594
	Feb	20,433			7,551	0.49	20,170
	Mar	20,296			8,477	0.49	20,512
	Apr	19,727			7,924	0.49	19,862
	May	19,811			8,332	0.49	20,223
	Jun	19,433			7,792	0.48	19,578
	Jul	19,361			7,992	0.48	19,425
	Aug	19,442	81	0.50	8,216	0.50	19,401
	Sep	19,523	81	0.50	7,985	0.50	19,482
	Oct	19,604	81	0.25	4,143	0.25	19,563
	Nov	19,686	82	0.25	4,026	0.25	19,645
	Dec	19,768	82	0.25	4,177	0.25	19,727
2009	Jan	19,850	82	0.25	4,206	0.25	19,809

The lag function is not applied during the Rate Shock simulations. Rate Shock is a change to the current rate environment, not to past rates, so lags are not applied.

Using the lag function may unnecessarily create more complication than needed. It may be more straightforward to use Step models that incorporate Offering Rate changes that are different when rates go up versus when rates go down.

Pricing Model

Model Selection
☐ Manual
☐ Quick Model
☐ New Model
☒ NOW

Driver: 3 mo T bill
 January Rate: 3.30 %
 Time Lag: 0 Months
 Current Price: 1.11 %
 Calc: Spread
 Edit: Spread/Factor

Create A Promotion

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	0.25	0.25
B	0.50	0.00	0.50
C	1.25	-0.50	0.75
D	1.75	-1.00	0.75
E	2.00	-1.25	0.75
F	2.25	-1.50	0.75

Add Insert Delete Clear

In order to create **Promotional Pricing**, click on the **Create A Promotion** button on your New Offering Rate model. The Promotional Pricing option is not available when using the Quick Offering Rate models.

In the example below, the promotion of -100BPS is being applied in the months of January, June and December and the promotion is carried through all years of forecasted data.

Rate Promotions

This form allows promotions to be added to a pricing model. Use the table below to enter any desired rate adjustments by month. These adjustments are applied after the model is calculated. Also, by default the promotions are only applied to the current year. If you want to apply the promotions to all years of the planning cycle, place a check mark next to the "Apply to all years" option.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Adjustment	-1.00	0.00	0.00	0.00	0.00	-1.00	0.00	0.00	0.00	0.00	0.00	-1.00

Clear Adjustments ☒ Apply to all years

Ok Cancel

The Rate Shock analyses will take a promotion into account only if that promotion is being applied to the first projected month. The shock calculations are performed, as before, then the promotional spread will be added / subtracted if the promotion is applied to the first projected month.

Pricing – Your Institution’s Response to Interest Rate Changes

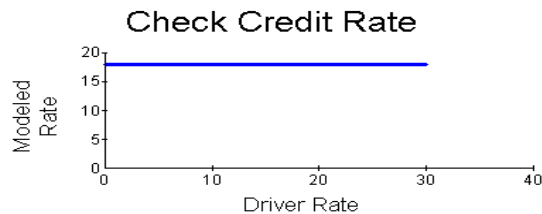
Financial institution performance has always been better than predicted by historical interest rate risk measurement techniques. There are several reasons for that, but an important reason is that managers do not blindly react to movements in market interest rates. Products (types of accounts) may be repriced in response to market changes, but not in lock step with those changes. Compass lets you demonstrate and develop your strategy for adjusting to market rate changes.

While Quick Pricing Models, as described in the previous section, allow you to show a simple, or linear, reaction like a fixed Spread to Prime or a % (Factor) of treasury securities for municipal bonds, **New Pricing Models** allow you to do much more. Compass supports up to 26 different relationships between a driver and the price, depending upon the level of the driver. Three examples of typical models include the following, **No Change in Price**, those with **Ceilings and Floors**, and the **Step Model**:

No Change in Price

Check Credit Lines are always priced at 18%, but are contractually variable:

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	18.00	18.00
B	30.00	-12.00	18.00

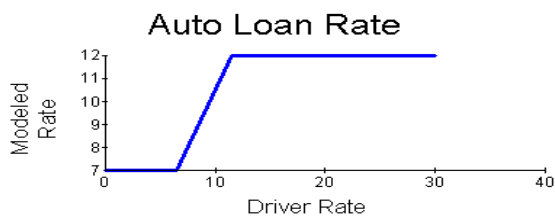


This pricing strategy requires only two entries to describe: (A) a very low level of the driver (0%) and the 18% price of the product, and (B) a very high level of the driver (30%) and the same 18% price. Why choose 0% and 30%? The choices of high and low limits are not important, as long as they are extreme enough to cover any possible level that your rate simulations might produce in the Driver.

Ceilings and Floors

Auto Loans will never be priced at less than 7% nor more than 12%; between those points, the Auto Loan Rate is at Prime + .5%:

Seg.	Driver	Rate	Spread
A	0.00	7.00	7.00
B	6.50	7.00	0.50
C	11.50	12.00	0.50
D	30.00	12.00	-18.00



A ceiling and floor can be described as **two changes in slope**. Each change in slope requires an additional entry to the Pricing matrix. You can calculate these two additional points by subtracting the spread from the floor, and subtracting the spread from the ceiling.

Examples of two accounts whose behaviors are often modeled using ceilings and floors would be Floating and Adjustable Rate Loans.

Floating Rate Loans with Floors and Ceilings

It is very easy to capture the behavior of Floating Rate Loans with Floors and Ceilings. Your loan maturity extract file normally contains the floor and ceiling fields, so it is important to make sure your Compass DataBridge is set up to capture these fields.

FileSpec		
	Extract File	Description
264	0	N/A--Default=0
265	52	Start--Monthly loan maturity location--Default=0
266	53	End--Monthly loan maturity location--Default=0
267	0	Start--Day of the year of loan mature--Default=0
268	0	End--Day of the year of loan mature--Default=0
269	58	Start--Year of loan maturity location--Default=0
270	59	End--Year of loan maturity location--Default=0
271	110	Start--Floating Loan Floor location--Default=0
272	115	End--Floating Loan Floor location--Default=0
273	0	Divisor needed to place decimal properly--Default=0
274	120	Start--Floating Loan Ceiling location--Default=0
275	125	End--Floating Loan Ceiling location--Default=0
276	0	Divisor needed to place decimal properly--Default=0
277		N/A--Default=Blank
278	33	Start--Scheduled payment location--Default=0
279	44	End--Scheduled payment location--Default=0

The DataBridge File Specifications Table, lines #271-276 need to be filled in.

As these accounts behave differently when rates change, it is necessary to break them out in your Compass chart. This means setting up a new account for this type of loan. By selecting Maturing, Floating in the Account Wizard, you'll be prompted to enter the floor and ceiling for the portfolio. This is not necessary at this time, as the fields will be populated automatically during the Monthly Update process. We suggest you enter the default values as prompted. If you *do not* have the floor and ceiling fields available in your loan extract, you can manually key in the data for the portfolio.

Account Wizard - Commercial: Commercial Loans-Float

Enter the lifetime floor(lowest interest rate over the entire life of the loan). If there is no floor, enter 1. If the floor is expressed as a maximum change from the initial interest rate, enter 1.

Lifetime floor: (%)

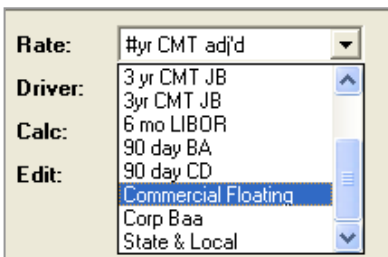
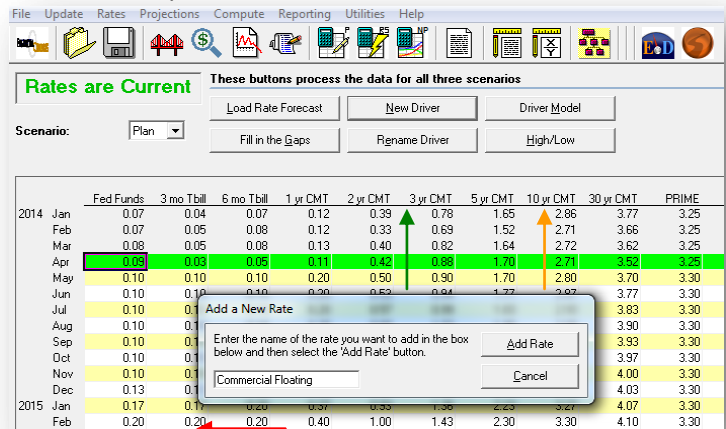
[More Info](#)

When the Monthly Update is run, Compass will calculate the weighted average floor and ceiling for the entire portfolio. Please make sure that you do not pull in floors and ceilings on mixed portfolios. The entire portfolio will be held to the weighted average floor and ceiling. This will come into effect when the account's Driver Rate moves to a level where the floors or ceiling would kick in. These can be viewed in the [Maturity Tab](#).

Commercial Loans-Float							
Projections	Budget	Maturity	Variance	Fed Funds	Notes		
Last EOM Balance	94,471	Total Scheduled Maturities	94,471	Balance Difference	0	Avg Floor/Ceiling	7.23/21.00
EOM Yield	9.00	XRate	9.00	Yield Difference	0.00	Weighted Avg Mat	22

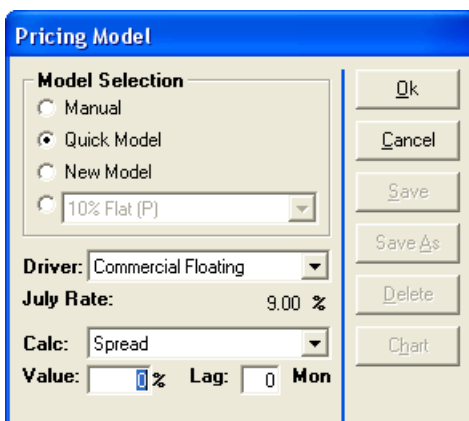
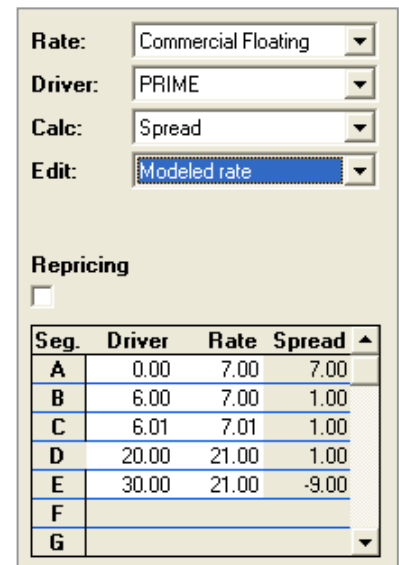
In order to properly capture the portfolio floor and/or ceiling, this type of an account needs its Offering Rate modeled using a **Driver Model**. A Driver Model is one that is set up in the Rate Forecast screen.

Select **New Driver** and enter the name of the account that you are modeling, in this case *Commercial Floating*. After entering the name, select **Add Rate** and it will appear as a new column heading at the far right hand side of your Driver Rate listing.



To set up the Driver Model, select **Driver Model** from the top of the Rate forecast screen. Then, bring up the newly created driver from the Rate menu.

Modeling of the New Driver rate should capture the characteristics of the account to ensure that the Rate Shock, Gap and Projections will reflect the true behavior of the portfolio. In this example the Commercial Floating Rate loan portfolio has an EOM Yield for June of 9% indexed to the Prime Rate. Prime as of last month was at 8%. That means that the average spread to Prime comes to 100BPS and the model can be set up accordingly. (Be careful as the EOM Yield may not indicate the true spread of the entire portfolio) Additionally, the Maturity Tab reveals that the weighted floor on the portfolio is 7.23% with a ceiling of 21%.

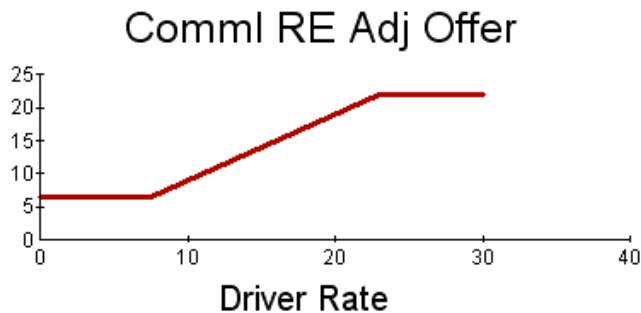


To set up the model, first select the Driver the model should be linked to, in this case Prime. Next, select the Calc and Edit mode (refer to the Growth Modeling section for more detail on these options). It is sometimes helpful to switch the Edit mode to Modeled Rate when setting up floors and ceilings. In this example, we set up the model to capture a portfolio floor of 7% and ceiling of 21%. The final step is to link the floating rate account to the new Driver Rate created. In most cases, you will not enter a spread as it has already been built into the Driver model.

Adjustable Rate Loans with Floors and Ceilings

Floor and Ceiling data will also be downloaded to this account type using the same fields as the Floating Rate accounts. You will also see this information in the Maturity Tab and Account Wizard.

For adjustable rate accounts, there is another step necessary to ensure that the floors and ceilings will be held in the Rate Shock Analysis and any dynamic simulation. Both the **Offering Rate** and **Repricing Rate** must be modeled with the appropriate floors and ceilings. For example, you have a Commercial Real Estate Adjustable portfolio that is normally priced at Prime minus 100BPS, a floor of 6.50% and a ceiling of 22%. The Offering and Repricing Rate models can easily be set up with these parameters.



Pricing Model

Model Selection

☐ Manual
☐ Quick Model
☐ New Model
☒ Comml RE Adj Offer

Driver: PRIME

November Rate: 0.00 %

Time Lag: 0 Months

Current Price: 6.50 %

Calc: Spread

Edit: Spread/Factor

Create A Promotion

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	6.50	6.50
B	7.50	-1.00	6.50
C	23.00	-1.00	22.00
D	30.00	-8.00	22.00
E			
F			

Add Insert Delete Clear

Show Loans at Limits as Fixed

If you have floating rate loan products that have floors or ceilings, you may want to show these balances on your Gap report as fixed. This will happen if the entire portfolio is at the stated floor or ceiling.

A common misconception is that these balances should be reflected on the Gap report as non-rate sensitive. This is incorrect because the Gap analysis reflects repricing risk and any principal balances received are subject to repricing. With this option set to "Yes" and a loan portfolio at a floor or ceiling, the balances on the report will appear the same as a fixed rate loan product would.

Report Properties - Gap

Level of Detail: Intermediate 1

Data Type: Static Gap

Reporting Period: January, 2008

Include totals: Yes

Include prepayments: Yes

Page break after RS Assets: No

Page break after RS Liabilities: No

FTE Adjusted: No

Include Non Rate Accounts: No

Show Loans at Limits as Fixed: Yes

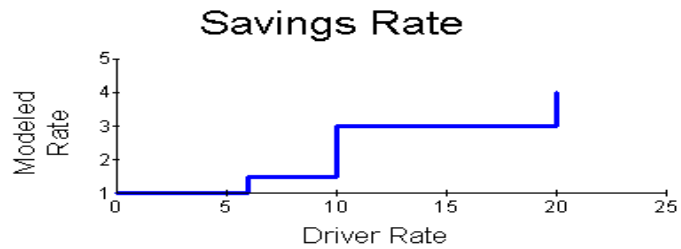
No.	From	Through the end of
1		1
2	1	3 months
3	3 months	6 months
4	6 months	12 months
5	12 months	24 months
6	24 months	36 months
7	36 months	48 months
8	48 months	59 months
9		> 59 months

Header Cancel Save As Save Preview

Step Model

Savings Rate would change only when Prime hits 6%, 10%, and 20%:

Seg.	Driver	Rate	Spread
A	0.00	1.00	1.00
B	5.99	1.00	-4.99
C	6.00	1.50	-4.50
D	9.99	1.50	-8.49
E	10.00	3.00	-7.00
F	19.99	3.00	-16.99
G	20.00	4.00	-16.00



Steps are established by subtracting one basis point (1/100 of 1%) from the Driver Rate at the point of each change, entering that amount in the table, and entering the Rate (switch Edit selection) as the same amount as the next lower change point. This method keeps the model from sloping between the change points. You may build as many as 25 steps, but if you enter a large number of small steps, the results may not be significantly different than a simple single slope model.

Keeping your pricing models accurate will require periodic review. Time spent in building good models will lessen the frequency of revisions and produce better results as rates change. Pricing model accuracy is especially important for rate shock analysis because of the wide range of possible rates being tested by that technique.

The Rate-Volume-Calendar report, found in the Variance section of the Report menu, is an excellent way to see if pricing models need adjustment. This report quantifies the difference from your plan caused by rate differences as opposed to volume differences. If rate variances become large in any particular account, it's time to review pricing strategy for that area. Another option is to view the Offering Rates report for the first projected month (this month) on a monthly basis. That rate should be close to the market rate for each product in the current month.

Many bankers experience initial difficulty with pricing models because they have not really thought about pricing dynamics. They may have set prices primarily by following the competition. Plansmith believes that the effort spent in discussing pricing strategy, rather than a "follow the leader" philosophy, will lead to better performance and lower exposure to changing rates. Compass lets you test the results of an alternative strategy and to test alternatives as conditions change.

Pricing - Using the Beta Calculation to Establish Pricing Models

Product pricing, especially for non-maturity deposits is often the most difficult assumption to develop for any ALM model. A pricing strategy needs to be developed that not only accounts for today's product price, but the price when rates rise and fall. Researching historical correlations between the product price and outside rate indices is an option, but involves manual efforts outside of the model. The Compass Beta option automatically calculates the correlation and beta for various product types and rate indices.

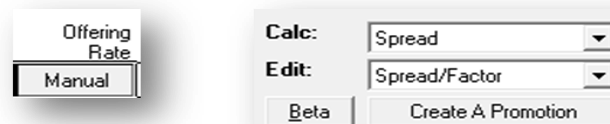
Applicable Accounts

We only suggest using the beta option for accounts that are truly variable in rate. This does not include fixed rate, adjustable rate or variable rate products with floors and/or ceilings. This will include variable rate products without floors and ceilings and nonmaturing deposits.

In order to use the beta calculation option, one should have sufficient history stored in the model so the relationship can be calculated. We suggest at least one year of historical data be present to use this function. If you have gaps where data is missing, those data points will be excluded from any calculation. It is also important to remember that pricing assumptions created using the beta function are representative of historical behaviors and may not represent the current or future pricing strategies for that product.

Setting Up a Beta Model

If the Offering Rate is set to Manual or Quick, click on the modeling button, select New Model. This will bring up the option for the Beta.

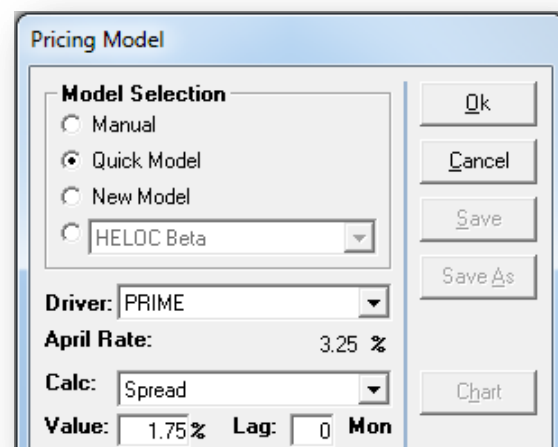


Beta Calculation

Our Beta formula is designed to account for the product price change as compared to the change in rate of an index in your Rate Forecast history. Although one's pricing practices may not intentionally be to gauge prices off of an outside index, the bank may be unconsciously pricing its products off of that index in reality.

To obtain the beta, we first calculate correlations between all indices in your Rate Forecast and the product price to see which index is the best fit. The beta is then calculated by examining each period where the index rose or fell and reviewing the product price to see if the price rose or fell. If the product price rose when rates rose, then we use that data to calculate the rising beta. When rates fell and the product price fell, we use that data to calculate the falling beta. A beta will not be calculated if the product price moved opposite to rate index changes.

The best fit for a beta model will be an indexed loan portfolio such as Commercial Variable or HELOC. If we look at a HELOC account, it is normally indexed to Prime Rate. This HELOC account already has a Quick Model of Prime + 1.75%.



Beta Button

In order to use the beta function, the New Model option should be selected and the Beta button will become visible. Clicking on the Beta button brings up the Beta Dialog screen. This product is perfectly correlated to Prime rate during the period examined.

Note the drop down menu list of rate indices. The model will automatically suggest which index to use based on the highest correlation.

If no correlations exist higher than 80%, that means your product price generally did not follow any outside index. The modeling for that account then would be your 'best guess' as to how the product would change when rates change. You may want to consider developing alternate pricing scenarios for that account to use in simulations. In the case of the HELOC account, most rate indices present high correlations. We suggest using the highest one, so we'll leave the Value set to Prime.

Because the account had a Quick Model, by switching to New Model, the Current Driver defaulted to Fed Funds as when a model is first set up. As no beta model had been applied, the values for Pivot, Spread, Rising and Falling Betas are all NA. This will change as the beta model is applied.

History Slider

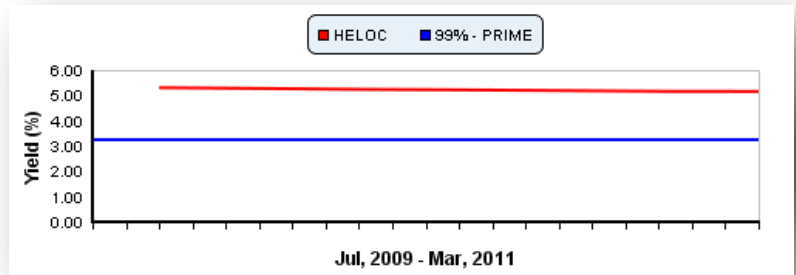
The slider will show, in months, the amount of data available for the analysis. In the HELOC, there are 21 months of data being used to calculate the beta values. If you would like a shorter period to be considered, drag the pointer to the left and let go. The Suggested Driver and resultant correlation may change as the different time period is considered. This feature may be useful if one is aware of data aberrations in recent months and they would like to exclude that data from the calculations.

Pivot Point

The next step in creating the beta model is to establish the Pivot point. The Pivot is the value of the index as of the last month end. In this case, Prime as of March. The Pivot rate is compared to the Average Yield/Cost as of last month end in order to obtain the Spread. In this example, a spread of 1.90% is needed in order to obtain the starting rate of 5.15% ($3.25\% + 1.90\%$).

Note the chart depicting the relationship between the two rates. In the case of the HELOC account, it shows no change in the two rates. Other account data may show fluctuations in both price and index over time, yet still reflect a valid correlation. This image is useful in describing what the relationship has been and can give a better understanding of the historical relationship.

	Current	Suggested
Driver	PRIME	PRIME
Pivot	3.25	3.25
Spread	1.90	1.90
Rising Beta	1.00	1.00
Falling Beta	1.00	1.00



Applying the New Model

In order to apply the New Model, click on Save As and give the model a name. We suggest using the term Beta in the model name in order to differentiate it from other models you've created. Click Ok to apply this name.

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	1.90	1.90
B	3.25	1.90	5.15
C	100.00	1.90	101.90
D			
E			
F			

The model you have just created will behave like other New Models in the software. Financial Compass automatically accounts for the Driver going to zero and rising to 100 in order to accommodate any level of interest rates. Click Ok to apply this model to the account.

We also suggest reviewing the model performance with rates changing to ensure the assumption is reasonable. A good tool is to look at the Rate Shock Yield report. Reviewing the output below, the beta model of 1 in rising and falling is behaving as expected. The model also had the spread of 1.90 applied when Prime reaches zero and that is reflected, too.

	-400	-300	-200	-100	0	100	200	300	400
HELOC	1.90	2.15	3.16	4.16	5.16	6.16	7.16	8.17	9.17

Maintaining the Models

Going forward, this account's price will change in accordance with Prime rate changes as the beta is 1. This may change over time as more history is accumulated. To update your model, simply open the model by clicking on the Modeled button.

Click on the Beta button, then Ok on the Beta Dialog box. This will update your model with the latest price and rate index information. We suggest you perform this function regularly (monthly or quarterly). You should also double check the correlation as that will also change over time.

Pricing Variances

In the case of the HELOC account, what if you are now charging Prime + 2.75% instead of Prime + 1.90%? In that case, just set up the model and adjust the spread manually. We recommend noting the manual override of the beta using Plan Notes.

NOW Accounts - Projections						
Projections	Budget	Variance	Fed Funds	Notes		
	EDM Balance	New Balance	Offering Rate	Expense	Cost	Average Balance
	Quick		Modeled			
2010 Jan	103,268			21,777	0.24	104,659
Feb	101,445			17,291	0.22	103,018
Mar	99,362			18,451	0.22	101,007
Apr	100,134			17,045	0.21	99,452
May	98,655			16,314	0.19	99,526
Jun	96,490			14,972	0.18	98,527
Jul	91,776			14,171	0.18	93,161
Aug	94,640			13,045	0.17	92,620
Sep	88,520			10,977	0.14	92,969
Oct	91,182			9,306	0.12	89,520
Nov	94,129			10,024	0.13	91,751
Dec	97,677			11,048	0.14	95,268
2011 Jan	102,512			12,264	0.14	100,834
Feb	100,522			10,543	0.14	101,093
Mar	101,103			11,398	0.13	100,412
Apr	100,870			10,865	0.13	101,721
May	96,838			11,057	0.14	91,295
Jun	96,171			10,982	0.14	96,374
Jul	96,171	0	0.15	12,350	0.15	96,171
Aug	96,171	0	0.15	12,415	0.15	96,171

In this next example, the NOW Account has sufficient history to use in the beta analysis. A New Model has already been applied to the account. Note that the current index used to model the account is Prime rate. This index was selected by the model operator.

Offering Rate
Modeled

Value

99% - PRIME

Calc:

Spread

Edit:

Spread/Factor

Beta

Create A Promotion

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	2.75	2.75
B	3.25	2.75	6.00
C	100.00	2.75	102.75

Pricing Model

Model Selection

☐ Manual
☐ Quick Model
☐ New Model
☒ NOW

Driver: PRIME

July Rate: 3.28 %

Time Lag: 0 Months

Current Price: 0.15 %

Calc: Spread

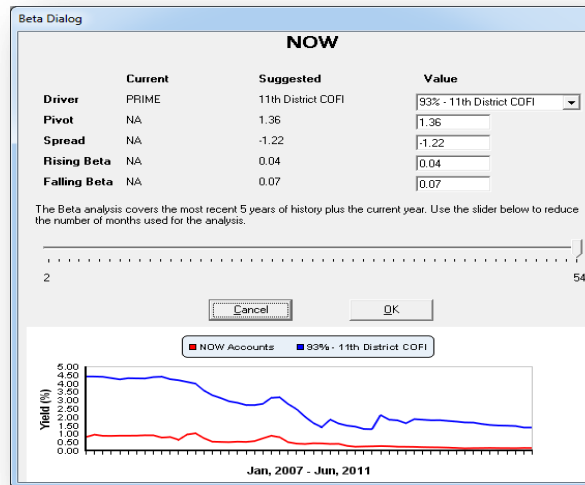
Edit: Spread/Factor

Beta Create A Promotion

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	0.05	0.05
B	1.00	-0.90	0.10
C	2.00	-1.88	0.12
D	3.00	-2.86	0.14
E	4.00	-3.82	0.18
F	5.00	-4.75	0.25

Add Insert Delete Clear

Clicking on the Beta button displays the Beta Dialog box and the relationship of this account to the various Driver rates. The historical data shows a better correlation of NOW Accounts to the 11th District COFI and has many months of data to back that up.



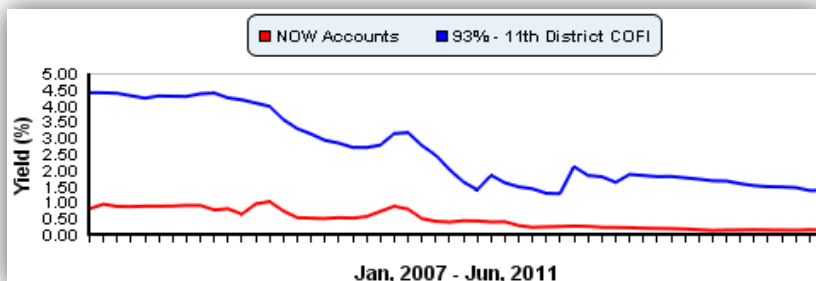
11th District COFI
1.51
1.48
1.47
1.45
1.36
1.36

The calculation of the Pivot, Spread, and Rising and Falling Betas are the same as in the previous example. (The Driver Pivot is the rate for that index as of last month end.)

Note the varying Rising and Falling betas derived by comparing the product rate in Financial Compass to the 11th District COFI. The Rising Beta is 4 BP for every 100 BP rise in rates and the Falling Beta is 7 BP.

	Current	Suggested	Value
Driver	11th District COFI	11th District COFI	93% - 11th District COFI
Pivot	1.36	1.36	1.36
Spread	-1.22	-1.22	-1.22
Rising Beta	0.04	0.04	0.04
Falling Beta	0.07	0.07	0.07

Notice that the previous driver used, Prime, only shows a correlation of 86%, while the chart shows the high correlation to the 11th District COFI.



Value
93% - 11th District COFI
93% - 11th District COFI
91% - 6 mo LIBOR
90% - 3 mo LIBOR
90% - 90 day CD
88% - 1 mo LIBOR
87% - 30 day CP
87% - 30 yr Fixed
86% - PRIME

If the product rate and index both did not change, then the index would not even appear on the correlation list. Correlations cannot be calculated if rates did not change.

Pricing Model

Model Selection

☐ Manual
☐ Quick Model
☐ New Model
☒ NOW Beta

Driver: **11th District COFI**
 July Rate: 1.36 %
 Time Lag: 0 Months
 Current Price: 0.14 %
 Calc: Spread
 Edit: Spread/Factor
 Beta ☐ Create A Promotion

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	0.04	0.04
B	1.36	-1.22	0.14
C	100.00	-95.91	4.09
D			
E			
F			

	Current	Suggested	Value
Driver	11th District COFI	11th District COFI	93% - 11th District COFI
Pivot	1.36	1.36	1.36
Spread	-1.22	-1.22	-1.22
Rising Beta	0.04	0.04	0.04
Falling Beta	0.07	0.07	0.07

After application, the Current model information has changed. When the current 11th District COFI rate of 1.36% is used with the spread of -1.22%, the product rate is calculated at 14 BP (Segment B).

The falling rate beta indicates how much the product rate will decrease as rates fall by 100 BP. In this instance, as the Driver rate decreases from 1.36 to .36, the product rate would decrease to .07 (not automatically displayed as a Segment in the model).

Since we are interested in capturing the floor rate when the Driver reaches zero in Segment A, and we know that the product rate goes from .14 to .07 at a driver of .36, we know that the account rate will decrease by .03 ($.36 * .07 = .0252$) when the 11th District COFI reaches zero. So, when the Driver rate moves from .36 to zero, the product rate drops by .03, from .07 to .04.

The rising beta is applied in the same manner.

Remember, the automation creates the current rate position or the Pivot (Segment B), the rate when the driver rate is at zero (Segment A), and the rate at 100 percent (Segment C).

NOW Accounts - Projections

Projections	Budget	Variance	Fed Funds	Notes		
	EOM Balance	New Balance	Offering Rate	Expense	Cost	Average Balance
2011	Quick		Modeled			
Dec	97,677			11,048	0.14	95,268
2011 Jan	102,512			12,264	0.14	100,834
Feb	100,522			10,543	0.14	101,093
Mar	101,103			11,398	0.13	100,412
Apr	100,870			10,865	0.13	101,721
May	96,838			11,057	0.14	91,295
Jun	96,171			10,982	0.14	96,374
Jul	96,171	0	0.14	11,435	0.14	96,171
Aug	96,171	0	0.14	11,435	0.14	96,171

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	0.04	0.04
B	1.36	-1.22	0.14
C	100.00	-95.91	4.09

The Rate Shock Yield report reflects the beta behavior exactly as calculated.

	-400	-300	-200	-100	0	100	200	300	400
Liabilities									
Interest Bearing Deposits									
NOW Accounts									
NOW Accounts	0.04	0.04	0.04	0.07	0.14	0.18	0.22	0.26	0.30
Money Market Accounts									
Money Market Accounts	0.10	0.21	0.56	0.73	0.90	1.21	1.41	1.61	1.88

One note of caution is that, if you use the beta calculation and there is no rising or falling rate history, there may be an artificial floor or ceiling applied to the account.

For example, in the model below, the product price does not decrease as the Driver decreases from segment B to A. Remember that the beta formula examines only instances where the product rate rises when the index rises and when the product rate falls when the index falls. For this account, there is no data to calculate a falling beta, so the rate stays the same.

Beta Dialog

NOW Checking

	Current	Suggested	Value
Driver	PRIME	30 yr Fixed	91% - 30 yr Fixed
Pivot	NA	4.95	4.95
Spread	NA	-4.90	-4.90
Rising Beta	NA	0.00	0.00
Falling Beta	NA	0.00	0.00

The Beta analysis covers the most recent 5 years of history plus the current year. Use the slider below to reduce the number of months used for the analysis.

Seg.	Driver	Spread	Rate
	0.00	0.00	0.00
A	0.00	0.05	0.05
B	4.95	-4.90	0.05
C	100.00	-100.00	0.00

Since the beta calculations are historical in nature, they should not be applied without review. They should serve as a guide to discuss what pricing behavior occurred in the past and if that same behavior should apply to the future. The Rate Shock Yield report provides a detailed audit of the model behavior in various rate environments.

Any assumption used in the model should have some basis either in historical behavior or serve as scenario analysis to ensure that viable possibilities are examined. The Beta option fully automates the start of this process.

PREPAYMENT UTILITY

(See also: Put/Call Module)

Customers do not always behave according to contract terms. Customers prepay loans and redeem certificates of deposit prior to their maturities. Bond issuers may be able to “call” their bonds prior to maturity. Unfortunately, these customer actions usually happen precisely when it is to the financial institution’s disadvantage, especially during times of rapidly changing interest rates.

Prepayments become more important as the length of time between rate changes increases, and as the volatility (magnitude of movements) of rates increases. If your portfolio is all short term or floating rate, you may be able to ignore prepayments. But if you have fixed rate loans or deposits that extend for more than 3 years, you need to consider prepayment behavior. Not all accounts require such models; however, even in times of minimal interest rate movements, failure to consider customer prepayments can lead to over-estimates of profitability and growth.

Compass captures a bank’s specific prepayment experience, and allows both simple and complex prepayment modeling at the account or category level. Viewing and editing your bank’s prepayment experience, as well as applying a prepayment model, are options available either from the menu bar by clicking on **Projections**, **Prepayment Utility** or within each account in the Account Projections screen by clicking on the **Maturity** tab and then the **Model** button at the top of the Scheduled PrePmts column.

Projections	Budget	Maturity	Variance	Fed Funds	Notes	
Last EOM Balance	13,646	Total Scheduled Maturities	13,646	Balance Difference	0	
EOM Yield	5.32	XRate	5.32	Yield Difference	0.00	Weighted Avg Mat 38
	Scheduled Maturities	Scheduled Maturities XRate	Adj. Scheduled Maturities	Adj. Scheduled Mats XRate	Scheduled PrePmts XRate	New Maturities XRate
						New PrePmts
2012	[User Edit]	[User Edit]		No Model		

The Prepayment Utility is broken down into three sections; **Model**, **History** and **Instruments**.

Financial Compass - [Prepayment Utility]

File Update Rates Projections Compute Reporting Utilities Help

Commercial-Fixed

Historic Prepayment %: 5.86 Current Time Period: Nov, 2012

Model | History | Instruments

Model Selection

☐ No Model ☐ New Detailed Model

☒ Quick Model ☐ >36 Mo CD Prepayments

Enter a monthly prepayment rate: 5.86 %

☒ Use Historic Prepayment %

Go to Account Projections

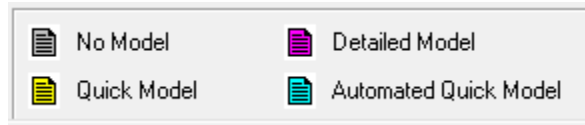
Export to Excel

Balance Sheet

- Assets
 - Securities
 - U. S. Gov't
 - US Treasuries
 - U. S. Agencies
 - US Agencies
 - US Agencies - Step-up
 - Mortg Backed Secs
 - MBS - Fixed
 - MBS - ADJ
 - MBS - GNMA - ADJ
 - CDO
 - Municipal Sec.
 - Municipals
 - Municipals - Taxable
 - Other Investments
 - Corporate Bonds

Model Tab

Compass supports three types of prepayment models:



Quick Model

A Quick Model specifies a monthly percentage of prepayment. This percentage will be calculated regardless of the current market rates and the contractual rates on the existing portfolio. Perhaps the most common use for the Quick Model is for consumer loans, especially auto loans. Historic analysis shows that these loans generally prepay faster than contractual payments. These prepayments may not be driven by customers' desire for refinancing at a better rate. They may result from customers' tendencies to want to reduce their debt, as well as from disposing of the collateral prior to final maturity. Please note that if you enter 8% or more the entire portfolio will prepay within one year. You will notice that the color associated with the account in the chart changes to yellow when you apply this model.

Automated Quick Model

An Automated Quick Model will mechanically apply a Quick Model based on the prepayment percentage calculated from your bank's own historical experience. Within the existing download process, Compass analyzes the bank's loans and time deposits and calculates a monthly prepayment figure. This amount will be accumulated and automatically update the Historic Prepayment percentage. It is not recommended that you use this Automated Quick Model until such time as sufficient history is accumulated for it to be meaningful. Once you have gained confidence in the historic measurement and wish to automate the use of the historic prepayment percentage, you can apply the Automated Quick Model by simply checking the Use Historic Prepayment % box. You will notice that the color associated with the account in the Chart changes to teal blue.



Commercial R/E - Fix

Historic Prepayment %: Current Time Period:

Model | History | Instruments

Model Selection

☐ No Model ☐ New Detailed Model

☒ Quick Model

Enter a monthly prepayment rate:

%

☒ Use Historic Prepayment %

Detailed Model

The most significant type of prepayment occurs because customers react to rate changes. Their behavior changes as the difference between their existing rate and the market rate changes. Compass has a powerful dynamic prepayment model that lets you capture and plan for this behavior.

A Detailed Prepayment Model is dynamic; it allows you to specify different rates of prepayment at various levels of spread. Spread is the difference between the contract rate to the customer and the current rate that you are offering on that product to new customers. The assumption is that your current rate is always competitive and is, therefore, a *market* rate.

Since the spread between current offering rates and maturity rates influences prepayments, Compass applies the following calculations:

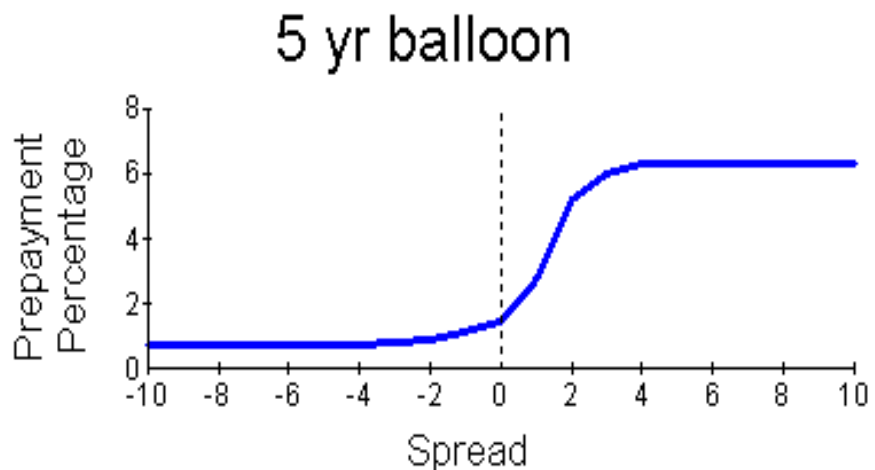
Assets: Maturity Exit Rate less Offering Rate = Spread

Liabilities: Offering Rate less Maturity Exit Rate = Spread

Therefore, a positive spread on an asset or liability reflects a favorable condition for the customer and Compass calculates a prepayment. A negative spread is less favorable to the customer and Compass calculates little or no prepayment.

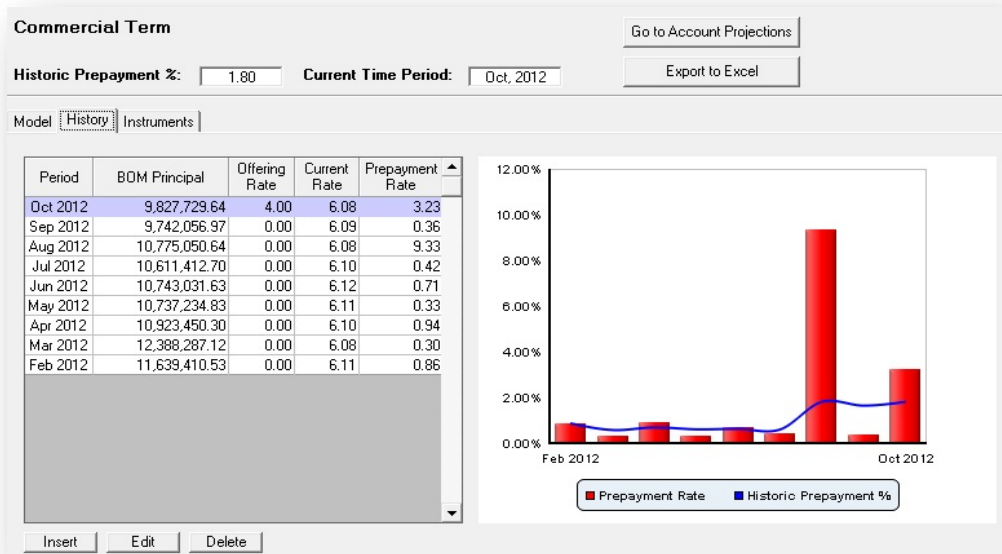
It is important to think of a broad range of spreads so that your model will be set to react to any possible change in projected vs. contract rates. Plansmith recommends that your model cover spreads as wide as +10% to -10%. Here's an example of how a New Detailed Model appears. You will notice that the color associated with the account in the Chart changes to purple.

Seg.	Spread	Prepayment Percent
A	-10.00	0.75
B	-4.00	0.75
C	-3.00	0.83
D	-2.00	0.92
E	-1.00	1.17
F	0.00	1.50
G	1.00	2.75
H	2.00	5.17
I	3.00	6.00
J	4.00	6.33
K	10.00	6.33



History Tab

Regulators expect that a bank understand and utilize their bank-specific prepayment experience and reflect that within their simulation model. Through the use of information gathered during the download process, Compass compares current month and prior month's balances to generate a prepayment percentage. The History Tab is populated monthly to reflect the current month's prepayment experience. Historic averages are stored indefinitely and a running total is accumulated with each new month-end download. Data can be viewed at the account or the category level and all details can be exported to Excel.



Use the **Insert** button to input additional lines of historical prepayment data for periods not stored as history within Compass.

Model History Instruments

Period	BOM Principal	Offering Rate	Current Rate	Prepayment Rate
Oct 2012	9,827,729.64	4.00	6.08	3.23
Sep 2012	9,742,056.97	0.00	6.09	0.36
Aug 2012	10,775,050.64	0.00	6.08	9.33
Jul 2012	10,611,412.70	0.00	6.10	0.42
Jun 2012	10,743,031.63	0.00	6.12	0.71
May 2012	10,737,234.83	0.00	6.11	0.33
Apr 2012	10,923,450.30	0.00	6.10	0.94
Mar 2012	12,388,287.12	0.00	6.08	0.30
Feb 2012	11,639,410.53	0.00	6.11	0.86

Period: Jan 2012

Principal: 11,584,913.11

Offering Rate: 5.60

Current Rate: 6.00

Prepayment Rate: .64

Commit Cancel

Insert Edit Delete

Model History Instruments

Period	BOM Principal	Offering Rate	Current Rate	Prepayment Rate
Oct 2012	9,827,729.64	4.00	6.08	3.23
Sep 2012	9,742,056.97	0.00	6.09	0.36
Aug 2012	10,775,050.64	0.00	6.08	9.33
Jul 2012	10,611,412.70	0.00	6.10	0.42
Jun 2012	10,743,031.63	0.00	6.12	0.71
May 2012	10,737,234.83	0.00	6.11	0.33
Apr 2012	10,923,450.30	0.00	6.10	0.94
Mar 2012	12,388,287.12	0.00	6.08	0.30
Feb 2012	11,639,410.53	0.00	6.11	0.86
Jan 2012	11,584,913.11	5.60	6.00	0.64

Insert Edit Delete

The **Edit** button allows you to manually change historical data that was either missing or deemed erroneous.

The screenshot shows the 'Instruments' tab with a table of historical data. The table has columns: Period, BOM Principal, Offering Rate, Current Rate, and Prepayment Rate. The data ranges from Jan 2012 to Oct 2012. An 'Edit' button is highlighted in the bottom left. A dialog box is open, allowing editing of the data for Feb 2012. The dialog box fields are: Period (Feb 2012), Principal (11,639,410.53), Offering Rate (6.05), Current Rate (6.11), and Prepayment Rate (0.86). The 'Edit' button in the dialog is highlighted.

Period	BOM Principal	Offering Rate	Current Rate	Prepayment Rate
Oct 2012	9,827,729.64	4.00	6.08	3.23
Sep 2012	9,742,056.97	0.00	6.09	0.36
Aug 2012	10,775,050.64	0.00	6.08	9.33
Jul 2012	10,611,412.70	0.00	6.10	0.42
Jun 2012	10,743,031.63	0.00	6.12	0.71
May 2012	10,737,234.83	0.00	6.11	0.33
Apr 2012	10,923,450.30	0.00	6.10	0.94
Mar 2012	12,388,287.12	0.00	6.08	0.30
Feb 2012	11,639,410.53	0.00	6.11	0.86
Jan 2012	11,584,913.11	5.60	6.00	0.64

Use the **Delete** button to remove any line of data that you have knowledge of that should be excluded from the prepayment calculation.

The screenshot shows the 'Instruments' tab with the same table of historical data. The 'Delete' button is highlighted in the bottom right. A dialog box titled 'Delete Prepayment History' is open, asking 'Are you sure?' with 'Yes' and 'No' buttons.

Period	BOM Principal	Offering Rate	Current Rate	Prepayment Rate
Oct 2012	9,827,729.64	4.00	6.08	3.23
Sep 2012	9,742,056.97	0.00	6.09	0.36
Aug 2012	10,775,050.64	0.00	6.08	9.33
Jul 2012	10,611,412.70	0.00	6.10	0.42
Jun 2012	10,743,031.63	0.00	6.12	0.71
May 2012	10,737,234.83	0.00	6.11	0.33
Apr 2012	10,923,450.30	0.00	6.10	0.94
Mar 2012	12,388,287.12	0.00	6.08	0.30
Feb 2012	11,639,410.53	6.05	6.11	0.86
Jan 2012	11,584,913.11	5.60	6.00	0.64

Instrument Tab

During the download process, instrument level detail for each loan and certificate of deposit is captured and displayed in the Instrument Tab for further analysis. To assist you in analyzing the data, you can click/double click on a column header to automatically sort values from highest to lowest or lowest to highest.

On occasion, due to extraordinary activity such as reclassifications or data errors in your download file, you may wish to adjust the prepayment amount that has been downloaded. To modify the instrument level calculated prepayment, simply enter the desired amount for the appropriate line item in the **Adjusted Prepayment** column, and it will be highlighted in purple. You will also see the **Adjusted Prepayment %** change automatically.

Commercial Loans - Fixed Go to Account Projections

Historic Prepayment %: Current Time Period: Export to Excel

Model | History | Instruments

Instruments: Calculated Prepayment %: Adjusted Prepayment %:

Instrument ID	Maturity Date	BOM Principal	EOM Principal	Current Rate	Expected Principal Payment	Actual Principal Payment	Calculated Prepayment	Adjusted Prepayment
		1,382,935.75	1,327,506.08	6.37	166,950.08	55,429.67	38,831.00	4,989.00
ID00029	26 Feb 2014	34,659.37	0.00	7.00	817.38	34,659.37	33,842.00	0.00
ID00003	10 Jul 2017	100,000.00	97,222.11	6.75	1,405.85	2,777.89	1,372.00	1,372.00
ID00009	14 Dec 2012	9,389.03	7,337.85	6.13	917.54	2,051.18	1,134.00	1,134.00
ID00001	28 Feb 2018	15,033.33	14,033.33	7.29	0.00	1,000.00	1,000.00	1,000.00
ID00016	30 Jul 2013	5,529.50	4,600.56	10.17	439.71	928.94	489.00	489.00
ID00023	02 Jun 2014	11,484.48	10,551.93	7.90	464.11	932.55	468.00	468.00

You have the ability to archive each month's instrument level detail including your changes, both before and after, using the **Export to Excel** button. Data can be exported from either the account level or category level. You can also always refer back to this information by accessing your monthly back-up plan file.

In order to achieve maximum functionality **every instrument must have a unique Instrument ID**. Please be mindful if you use different ID numbers for one instrument, for example for loan participations.

Loan and deposit instruments are populated directly from your download files. Manual adjustments made in the Maturity tab to correct **Red Flags** will **not** be reflected in the **Instrument Tab**. The Instrument Tab will tie to the unadjusted maturity data downloaded from the extract files.

The **Current Rate** displayed on the History and Instrument tabs for each portfolio equals the weighted average yield on the portfolio as of the beginning of the month, but may not agree exactly with the EOM Yield (blue box yield) on the Account Projections screen as the Current Rate will take prepayments into account.

Commercial Term - Var. Go to Account Projections

Historic Prepayment %: Current Time Period: Export to Excel

Model | History | Instruments

Instruments: Calculated Prepayment %: Adjusted Prepayment %:

Instrument ID	Maturity Date	BOM Principal	EOM Principal	Current Rate	Expected Principal Payment	Actual Principal Payment	Calculated Prepayment	Adjusted Prepayment
		9,827,729.64	9,440,257.25	6.08	498,547.93	387,472.38	317,113.00	317,113.00
D0000001	05 May 2019	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000002	05 Oct 2016	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00

The offering rates for each account are being tracked as a proxy for current market rates. These will be useful as you analyze trends based on spreads to current rates. The offering rate is displayed on the History Tab, and may also be viewed in your Excel export file under the **Offering Rate** column.

Instrument ID	Maturity Date	BOM Principal	EOM Principal	Current Rate	Expected Principal Payment	Actual Principal Payment	Calculated Prepayment	Adjusted Prepayment
		9,827,729.64	9,440,257.25	6.08	498,547.93	387,472.38	317,113.00	188,116.32
ID0000001	05 May 2019	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000002	05 Oct 2016	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00

Instrument ID	Maturity Date	BOM Principal	EOM Principal	Rate	Offering Rate	Expected Cash Flow	Actual C
000001	5/5/2019	19,235.23	19,038.32	6.00	4.00	196.14	
000002	10/5/2016	240,830.00	240,830.00	6.00	4.00	0.00	
000003	10/22/2015	0.00	33,600.00	6.00	4.00	0.00	

Instrument ID	Maturity Date	BOM Principal	EOM Principal	Current Rate	Expected Principal Payment	Actual Principal Payment	Calculated Prepayment	Adjusted Prepayment
ID0000128	15 Jul 2014	9,827,729.64	9,440,257.25	6.08	498,547.93	387,472.38	317,113.00	188,116.32
ID0000001	27 Apr 2020	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000027	14 Dec 2013	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000038	01 Mar 2015	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000097	12 Sep 2013	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000035	20 Jun 2013	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000072	02 Nov 2012	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000045	17 Jun 2014	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000071	02 Apr 2021	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000060	02 Aug 2016	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000123	10 Sep 2014	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000077	30 Sep 2013	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000022	02 Feb 2017	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000094	05 Apr 2014	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000026	20 Nov 2015	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000132	15 Dec 2014	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000011	25 Jun 2013	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000018	04 Apr 2016	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000090	20 Jul 2016	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00
ID0000078	02 Aug 2013	19,235.23	19,038.32	6.00	196.14	196.91	1.00	1.00
ID0000098	15 Sep 2014	240,830.00	240,830.00	6.00	0.00	0.00	0.00	0.00

To allow you to preserve confidentiality, **Instrument ID's** can be masked from view by going to **Utilities; Options** and checking the box **Hide Instrument ID's** on the General Tab. When exporting data to Excel, we suggest you include the actual account numbers with the data.

Strategic Business Units (SBUs)

If you operate a departmental system, the historic data is loaded into each unit. You may view and export to Excel historic prepayment and instrument level detail at both the Total Bank and at each unit. Model assumptions are set and maintained at the unit level only.

PUT/CALL MODULE

The information for the Put/Call Evaluation Module is accessed by clicking on Account Projections. Choose the appropriate account and select the **Callable** tab.

The data for these fields are either downloaded from your Investment Maturity file or manually entered from reports generated by your broker. In the example below, we have chosen a Municipal Bond account. The data is arranged as follows:

Projections		Budget	Maturity	Variance	Callable		Fed Funds	Notes	
	Bond ID	Book Value (thousands)	Coupon Rate	Yield to Maturity	Call Date	Call Freq. (months)	Spread	Final Maturity Date	First Repricing Date
1	486413AN7	1,000	4.25	4.50	04/01/12	3	0.00	01/01/20	12/30/99
2	486413AP2	2,000	4.45	4.55	01/01/11	0	0.00	01/01/21	12/30/99
3	486413AQ0	500	4.50	4.60	07/01/10	1	0.00	01/01/22	12/30/99
4	486413AR8	500	4.55	4.65	01/01/13	6	0.35	01/01/23	12/30/99
5	486413AS6	800	4.70	4.70	01/01/11	12	0.00	01/01/24	12/30/99
6	486413AT4	60	4.75	4.75	01/01/11	12	0.00	01/01/25	12/30/99

Bond ID

Typically, this will either be the CUSIP number or a code that uniquely identifies the amount of a particular issue that is included in an account.

Book Value (thousands)

This data is downloaded into the Scheduled Maturity fields.

Coupon Rate

The rate paid on the instrument at the time of origination. The coupon rate may often be different from the yield.

Yield to Maturity

The annualized rate of return that you would earn if you bought an investment at its current market price and held it until maturity.

Call Date

This is the first date on which the security can be called or the historical call date (past date).

Call Freq. (months)

The Call Freq. (months) determines how often the Spread will be checked against the difference between the Coupon Rate and Offering Rate to determine prepayment or call. If you do not have any data for this field, enter a value of one (1) month or zero (0) months for a one-time call.

Spread (Or Spread to Call)

This is the differential between the Coupon Rate and Offering Rate that triggers the call. The Spread will only be checked on or after the Call Date. For example, a bond with a Coupon Rate of 1.70% with a Spread set to .1, will be called when the Offering Rate falls below 1.60%. (Market) Spread is impacted by (1) Call Freq., (2) Remaining Maturity and (3) Credit Risk, if any. Remember, the Spread as defined by Compass is a positive benefit to the customer, or as in this case, the issuer. The Spread should be set to zero if not supplied by your broker. (Usually set to an amount between zero and one percent.)

Final Maturity Date

Date downloaded from your extract file or supplied by your broker for manual entry. Click on the **Maturity Tab** to make sure that the amount is also included in the appropriate month on the maturity table. If not, the call will not work.

	Scheduled Maturities	Scheduled Maturities Xrate	Adj. Scheduled Maturities	Scheduled Mats Xrate
2012	[User Edit]	[User Edit]		
Jun	0	0.00	0	0.00
Jul	0	0.00	0	0.00
Aug	0	0.00	0	0.00
Sep	0	0.00	0	0.00
Oct	0	0.00	0	0.00
Nov	0	0.00	0	0.00
Dec	0	0.00	0	0.00
2015 Jan	1,000	1.00	1,000	1.00
Feb	0	0.00	0	0.00
Mar	0	0.00	0	0.00
Apr	0	0.00	0	0.00
May	0	0.00	0	0.00
Jun	0	0.00	0	0.00
Jul	2,000	1.50	2,000	1.50
Aug	0	0.00	0	0.00
Sep	0	0.00	0	0.00
Oct	1,000	1.50	0	0.00

First Repricing Date

This applies only to securities such as Step Ups that can potentially reprice at certain intervals or specified dates. Here's an example of how the **Callable Tab** works:

Projections		Budget	Maturity	Variance	Callable		Fed Funds	Notes	
	Bond ID	Book Value (thousands)	Coupon Rate	Yield to Maturity	Call Date	Call Freq. (months)	Spread	Final Maturity Date	First Repricing Date
1	3133792E8	1,000	1.70	1.50	04/07/12	0	0.10	10/07/15	

The Callable Tab shows a US Agency security with a Spread set to 10 basis points. It has a Call Date of 4/07/12 and a Call Freq. (months) of zero. The Book Value is \$1,000,000 and the Coupon is 1.70. This security is fixed and does not reprice.

In the Maturity Tab, we see the Book Value showing as a Scheduled Prepayment in April 2012:

	Scheduled Maturities	Scheduled Maturities Xrate	Adj. Scheduled Maturities	Adj. Scheduled Mats Xrate	Scheduled PrePmts	Scheduled PrePmts Xrate
2012	[User Edit]	[User Edit]			No Model	
Dec						
2012 Jan						
Feb						
Mar	0	0.00	0	0.00	0	0.00
Apr	0	0.00	0	0.00	1,000	1.50

This bond has been called because both the Call Date (4/07/12) and Spread (.10) criteria have been met ($1.70 - 1.56 = .14$ which is $> .10$).

Projections		Budget	Maturity	Variance	Callable	
		EOM Balance	New Balance	Offering Rate	Total Maturities	Total Maturities Xrate
2012		Manual	[User Edit]	Manual		
	Feb	14,000				1.51
	Mar	14,000	0	1.55	0	0.00
	Apr	14,000	1,000	1.56	1,000	1.50

Note: If you have a security that is only partially callable, you can enter that percent of the Book Value in that cell. Also, if you re-run the download and you have a download for the callable data, any manual corrections to the callable data will be overwritten.

If any of your securities have been called, you can remove them from the callable tab by right clicking on the item and selecting **Delete Bond**.

INCOME/EXPENSE ACCOUNTS

The projected data for income/expense is formatted differently from the balance sheet. The projected income/expense is displayed for all years to the right of the current year. There are several options for editing data in this screen. The first is the **Manual** mode. This mode operates similarly to the Manual mode in the balance sheet Projections Tab. Just type in your numbers or use any of the Quick Edit options (refer to the Quick Edit Options located in the Account Projections section of the manual).

Service Chrg Demand										
Projections	Budget	Variance	Notes							
	2003 Income	2004 Income	2005 Income	2006 Income	2007 Income	2008 Income	2009 Income	2010 Income	2011 Income	2012 Income
2008						Manual	[Manual]	[Manual]	[Manual]	[Manual]
Dec						41,329	42,000	51,000	60,250	69,250
Jan	1,919	2,567	4,617	11,362	20,307	41,330	42,750	52,000	61,000	61,000
Feb	2,336	2,474	5,146	9,604	20,439	34,500	43,500	52,750	61,750	61,750
Mar	804	3,282	4,910	14,026	21,949	35,250	44,250	53,500	62,500	62,500
Apr	1,985	3,632	6,460	11,210	25,659	36,000	45,000	54,250	63,250	63,250
May	2,262	2,815	5,684	14,999	33,045	36,750	45,750	55,000	64,000	64,000
Jun	1,715	3,770	8,361	14,672	35,943	37,500	46,500	55,750	64,750	64,750
Jul	2,470	4,376	9,443	14,000	27,819	38,250	47,250	56,500	65,500	65,500
Aug	2,058	3,815	10,200	15,935	30,244	39,000	48,000	57,250	66,250	66,250
Sep	2,507	4,627	7,716	16,887	33,844	39,750	48,750	58,000	67,000	67,000
Oct	2,851	5,113	7,805	24,191	33,339	40,500	49,500	58,750	67,750	67,750
Nov	2,019	5,174	9,135	23,489	34,852	41,250	50,250	59,500	68,500	68,500
Dec	3,112	6,301	11,861	25,206	41,329	42,000	51,000	60,250	69,250	69,250
Total	26,038	47,946	91,338	195,581	358,769	462,080	562,500	673,500	781,500	781,500

Income/Expense Model

Income/Expense Model

Model Selection

☐ Manual
 ☒ Fee Model
 ☐ Annual Growth Rate
 ☐ New Month from previous Month

Ok

Cancel

Save

Save As

Delete

Draw from: Select an category or account...

Assets

Cash & Due

Fed Funds Sold

Securities

Loans

Loan Loss Reserve

Fixed Assets

Investment Loss Reserve

Goodwill

By taking: 0 % of EOM balances

Average balances

EOM balances

New balances

Modeling in income/expense also operates differently than in the balance sheet. In order to use the modeling functions, one must click on the Manual button.

Projections	Budget	Variance	Notes			
	2003 Income	2004 Income	2005 Income	2006 Income	2007 Income	2008 Income
2008						Manual

This will bring up a new window that offers three new options, the first of which is the **Fee Model**. Fee Modeling offers the option of determining income/expense based upon a percentage of either EOM, Average or New balances in a balance sheet account.

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Annual Growth Rate

Income/Expense Model

Model Selection

- ☐ Manual
- ☐ Fee Model
- ☒ Annual Growth Rate
- ☐ New Month from previous Month
- ☐ [Dropdown]

Enter an annual growth rate: %

Buttons: Ok, Cancel, Save, Save As, Delete

The second modeling option is **Annual Growth Rate**. The Annual Growth Rate selection will apply an annual percentage of growth to the *previous year's* total income/expense. View the data for the previous year by scrolling to the left of the current year's figures.

If you do not have a full year of historical data, then the model will first project a total for the current year based upon the last actual month's number with zero growth. For example if the last posted month is \$10,000, then the total for the year will become \$120,000. Subsequent years will grow based upon the growth percentage times the projected total for the current year.

New Month from previous Month

The final modeling selection is **New Month from previous Month**. This option allows the user to change projected income/expense based upon historical information. This model takes into account seasonal and cyclical effects. To create this type of model, select New Month from previous Month from the Model Selection list and a grid will be displayed as shown.

Enter the monthly growth rate for the current year as well as the future years (scroll down to display). After entering the monthly rates, click on the **Save As** button and type in the name of your model where prompted. Note that this model will appear on a master list of models accessible by clicking on the drop down arrow next to the model name.

Income/Expense Model

Model Selection

- ☐ Manual
- ☐ Fee Model
- ☐ Annual Growth Rate
- ☒ New Month from previous Month
- ☐ 5% to 25% Growth

	Growth Rate
Jan	5.00
Feb	5.00
Mar	5.00
Apr	5.00
May	5.00
Jun	5.00
Jul	5.00
Aug	5.00
Sep	5.00
Oct	5.00
Nov	5.00
Dec	5.00

Buttons: Ok, Cancel, Save, Save As, Delete

DDA Service Charges										
Projections	Budget	Variance	Notes							
	2003 Income	2004 Income	2005 Income	2006 Income	2007 Income	2008 Income	2009 Income	2010 Income	2011 Income	2012 Income
2008						Growth	[Growth]	[Growth]	[Growth]	[Growth]
Dec						3,801	3,991	4,191	4,400	4,620
Jan	8,839	7,772	6,607	11,741	3,379	3,548	3,725	3,912	4,107	4,313
Feb	7,757	5,569	5,534	5,361	2,827	2,968	3,117	3,273	3,436	3,608
Mar	7,166	6,299	6,334	6,467	2,825	2,966	3,115	3,270	3,434	3,605
Apr	7,810	6,502	8,109	5,041	3,335	3,502	3,677	3,861	4,054	4,256
May	9,242	6,496	7,070	3,770	2,717	2,853	2,995	3,145	3,303	3,468
Jun	7,649	6,041	6,940	4,574	2,854	2,997	3,147	3,304	3,469	3,643
Jul	7,274	6,948	7,573	2,911	2,716	2,852	2,994	3,144	3,301	3,466
Aug	8,504	5,868	5,667	3,433	3,051	3,204	3,364	3,532	3,709	3,894
Sep	8,417	6,162	5,677	3,541	3,018	3,169	3,327	3,494	3,668	3,852
Oct	6,481	6,268	6,194	2,948	3,090	3,245	3,407	3,577	3,756	3,944
Nov	8,809	6,248	5,437	2,994	3,151	3,309	3,474	3,648	3,830	4,022
Dec	7,523	8,337	9,232	2,793	3,801	3,991	4,191	4,400	4,620	4,851
Total	95,471	78,510	80,374	55,574	36,764	38,604	40,533	42,560	44,687	46,922

In the example above, a New Month from previous Month growth model has been created to show the effects of increasing growth from 5% to 25% over a 5-year period. We entered a 5% growth rate for 2008, 10% for 2009, 15% for 2010, 20% for 2011, and for 2012, we entered 25%. Notice that the growth percentage for each year is applied to each monthly figure from the previous year's monthly data. For example, the amount of \$3,548 in January 2008 is a 5% increase over the January 2007 income of \$3,379; the January 2009 income of \$3,725 is a 10% increase over January 2007 income of \$3,379 and so on.

Another way to reflect seasonal effects is to enter different rates for selected months within a particular year. As in the previous example, this model will apply the designated percentage to the income/expense figure in the same month from the previous year. In the example to the right, a 10% growth rate will be applied to May, June & July, while the rest of the year will remain at a 5% growth rate.

Income/Expense Model

Model Selection

- ☐ Manual
- ☐ Fee Model
- ☐ Annual Growth Rate
- ☐ New Month from previous Month
- ☒ Seasonal Growth

Buttons: Ok, Cancel, Save, Save As, Delete

Year	Month	Growth Rate
2008	Jan	5.00
	Feb	5.00
	Mar	5.00
	Apr	5.00
	May	10.00
	Jun	10.00
	Jul	10.00
	Aug	5.00
	Sep	5.00
	Oct	5.00
	Nov	5.00
	Dec	5.00

Please remember that not all accounts will easily lend themselves to modeling. Perhaps the Quick Edit option may be the best way to project income and expense.

Loan Loss Reserve and Loan Loss Provision Modeling

The Loan Loss Reserve (LLR) and Loan Loss Provision (LLP) accounts in Compass can be linked together via the Modeling function so that changes in one account will be automatically updated in the other account. This Modeling functionality allows users to build models that incorporate loan growth changes, include expected net charge-off projections and/or project required Provisions based on Allowance as a % of Loans targets. Those calculated results will be incorporated in both the LLR and the LLP accounts and automatically updated as forecasted loan balances change over time.

To enter the Model screen, click on the “Manual” or “Modeled” button at the top of the EOM Balance Column (from the LLR account) or the Expense column (from the LLP account). The model can be accessed from either account. When set to the “Modeled” mode, changes made from the LLR account will be reflected on the LLP account, and vice versa. This modeling feature is available for the first account within the Loan Loss Reserve and Loan Loss Provision folders. If set back to the “Manual” mode, these accounts will not be linked and numbers currently in the model will be kept static.

Allowance for Loan Losses - Projections		
Projections Budget Variance Fed Funds N		
2014	Manual	
Dec		-18,326
2014 Jan		-18,566
Feb		-18,754
Mar		-18,928
Apr		-18,928

Model Selection

☒ Manual
☐ New Model

Basic Model Functionality

Within the model, users can review historical numbers which are highlighted in darker grey. Columns highlighted in white are editable by the User. You can set targets for Allowance levels as a Percentage of Loans and input expected Net Charge-off levels. Based on that input, a Calculated Provision for Loan Loss will be populated on this screen and the Allowance for Loan Loss column will be updated. By saving this model and exiting this screen, both the LLR and LLP accounts within Compass will be populated with the data outlined below. As you update Loan balances in future months, the model will recalculate the LLR and LLP and update those accounts accordingly.

Model Selection

☐ Manual
☐ New Model
☒ Test1

☐ Distribute Provision Evenly

		Total Loans (000's)	Target Allowance as a % of All Loans	Allowance for Loan Loss (000's)	Net Charge Offs (000's)	Calculated Provision for Loan Loss	Adjusted Provision	Resulting Loan Loss/Total Loans
2014	Jan	1,575,937	1.18%	-18,566	211	450,000		
	Feb	1,586,988	1.18%	-18,754	111	300,000		
	Mar	1,609,444	1.18%	-18,928	227	400,000		
	Apr	1,610,785	1.18%	-19,076	0	148,149	0	1.18%
	May	1,612,127	1.19%	-19,224	0	148,382	0	1.19%
	Jun	1,613,471	1.20%	-18,724	-500	-500,000	0	1.16%
	Jul	1,614,815	1.21%	-19,272	250	547,466	0	1.19%
	Aug	1,616,161	1.22%	-20,421	1,000	1,149,085	0	1.26%
	Sep	1,617,508	1.23%	-20,570	0	149,320	0	1.27%
	Oct	1,618,856	1.23%	-20,720	0	149,555	0	1.28%
	Nov	1,620,205	1.24%	-20,869	0	149,791	0	1.29%
	Dec	1,621,555	1.25%	-21,019	0	150,032	0	1.30%

Buttons: Ok, Cancel, Save, Save As, Delete

Advanced Model Functionality (Smoothing LLP Calculated Results)

You may wish to project the provision evenly over time, rather than showing monthly fluctuations. When the “Distribute Provision Evenly” button is checked, calculated Provision for Loan Loss numbers are annualized, rounded to the thousand and spread evenly over each month. The Model will update regularly, adjusting these numbers on a rounded basis as needed.

Allowance for Loan Loss Model

Model Selection

☐ Manual
☐ New Model
☒ Test1

☒ Distribute Provision Evenly

		Total Loans (000's)	Target Allowance as a % of All Loans	Allowance for Loan Loss (000's)	Net Charge Offs (000's)	Calculated Provision for Loan Loss	Adjusted Provision	Resulting Loan Loss/Total Loans
2014	Jan	1,575,937	1.18%	-18,566	211	450,000	0	1.18%
	Feb	1,586,988	1.18%	-18,754	111	300,000	0	1.18%
	Mar	1,609,444	1.18%	-18,928	227	400,000	0	1.18%
	Apr	1,610,785	1.18%	-19,161	0	148,149	233,000	1.19%
	May	1,612,127	1.19%	-19,394	0	148,382	233,000	1.20%
	Jun	1,613,471	1.20%	-20,127	-500	-500,000	233,000	1.25%
	Jul	1,614,815	1.21%	-20,110	250	547,466	233,000	1.25%
	Aug	1,616,161	1.22%	-19,343	1,000	1,149,085	233,000	1.20%
	Sep	1,617,508	1.23%	-19,576	0	149,320	233,000	1.21%
	Oct	1,618,856	1.23%	-19,809	0	149,555	233,000	1.22%
	Nov	1,620,205	1.24%	-20,042	0	149,791	233,000	1.24%
	Dec	1,621,555	1.25%	-20,275	0	150,032	233,000	1.25%

Ok
 Cancel
 Save
 Save As
 Delete

Manually Adjust LLP Calculated Results

The “Adjusted Provision” column will also allow you to utilize this screen for analysis, but overwrite the calculated numbers. Note that if this column is populated, the model will inform you that the data will be transferred to the LLR and LLP accounts initially, but the LLR and LLP accounts will be set back to “Manual” and future model changes will not be reflected in these accounts. This is a good tool to utilize if you would like to analyze these accounts periodically (e.g. quarterly) and apply your results, but do not wish to have monthly fluctuations flow through your projections.

Allowance for Loan Loss Model

Model Selection

☐ Manual

☐ New Model

☒ Test1

☐ Distribute Provision Evenly

	Total Loans (000's)	Target Allowance as a % of All Loans	Allowance for Loan Loss (000's)	Net Charge Offs (000's)	Calculated Provision for Loan Loss	Adjusted Provision	Resulting Loan Loss/Total Loans
Mar	1,609,444	1.18%	-18,928	227	400,000	0	1.18%
Apr	1,610,785	1.18%	-19,078	0	148,149	150,000	1.18%
May	1,612,127	1.19%	-19,228	0	148,382	150,000	1.19%
Jun	1,613,471	1.20%	-19,228	-500	-500,000	-500,000	1.19%
Jul	1,614,815	1.21%	-19,153	250	547,466	175,000	1.19%
Aug	1,616,161	1.22%	-18,328	1,000	1,149,085	175,000	1.13%
						175,000	1.14%
						200,000	1.16%
						200,000	1.17%
						200,000	1.18%
						0	1.18%
						0	1.18%
						0	1.18%
						0	1.17%
						0	1.17%
						0	1.17%
						0	1.17%
						0	1.17%
						0	1.17%

Confirm Manual

Because you have values in the Adjusted Provision column and you have chosen not to Distribute Evenly, the Adjusted Provision values will be saved, but the account will remain Manual. Is that what you meant to do?

Scenario Testing

Similar to Growth and Pricing Models, multiple model scenarios can be created and saved, to be applied at a later date and/or used to create different financial scenarios to review.

Allowance for Loan Loss Model

Model Selection

☐ Manual

☐ New Model

☒ Keep ALLL constant

☒ Distribute Provision Evenly

	Total Loans (000's)	Target Allowance as a % of All Loans	Allowance for Loan Loss (000's)	Net Charge Offs (000's)	Calculated Provision for Loan Loss	Adjusted Provision
Feb	1,586,988	1.18%	-18,754	111	300,000	0
Mar	1,609,444	1.18%	-18,928	227	400,000	0
Apr	1,610,785	1.18%	-18,951	0	79,605	23,000
May	1,612,127	1.18%	-18,974	0	15,840	23,000
Jun	1,613,471	1.18%	-18,997	0	15,853	23,000

TAXES

Access the tax settings by selecting **Projections, Tax Information** from the drop down menu at the top of the screen. You can either enter a nominal **Rate** as shown at right or enter an **Amount** for the entire year. To enter an amount, click on the down arrow next to Rate and make your selection.

Tax Information		2011	2012	2013	2014	2015
State taxes	Rate	4.00	4.00	4.00	4.00	4.00
Federal taxes	Rate	34.00	34.00	34.00	34.00	34.00
Federal tax credits	Amount	0	0	0	0	0
Federal tax loss carry forward		0	0	0	0	0
Other adjustments: State		0	0	0	0	0
Other adjustments: Federal		0	0	0	0	0
Should state taxes be distributed according to net pre-tax income?						Yes
Should federal taxes be distributed according to net pre-tax income?						Yes
Allow for the calculation of negative state taxes?						No
Edit Budget Taxes		Ok		Cancel		

Taxes calculate differently than most other Compass accounts. During the Plan Compute, taxes are determined for the entire year and then are allocated to each month in the year either based upon net pre-tax income or on a straight-line basis. Each account's tax preference is also uniquely considered in the tax calculation based upon the tax setting established in the account setup (see Account Wizard). Compass allows the user to specify the exact tax treatment for each account such as Fed Exempt, State & Fed Exempt, 20% TEFRA, etc. To see each account's tax preferences, print out the Chart of Accounts report.

Other tax preferences and adjustments such as **Loss Carry Forward** and Development Bank credits can and must be taken into consideration in tax calculation. Ask your Tax Advisor to help you set up your tax information initially. After some experience you will find that Compass projects taxes very precisely.

DO NOT select *Edit Budget Taxes* as the budget data will be stored from your projections after locking the budget.

Should you wish to verify the tax calculation, there is a **Tax Audit Report** available within the **Analysis Reports** folder in the **Reporting** menu.



Accounts

State Income Tax Calculation

Pretax Income
 Less: US Treasuries
 US Agencies
 State Taxable Income
 Rate
 Tax

Federal Income Tax Calculation

Pretax Income
 Less: State Tax
 Plus: TEFRA Disallowance
 Federal Taxable Income
 Rate
 Tax Before Adjustments
 Tax Adjustments
 Tax

TEFRA Disallowance Input

Federal Tax Exempt Interest Income (\$'s)
 Federal Tax Exempt Non Tefra Interest Income (\$'s)
 Difference = TEFRA Disallowance

Estimated Annual TEFRA Calculation

EOM Total Assets
 EOM Undivided Profit + Current Earnings
 Total Interest Expense
 TEFRA Factor
 EOM Balance of Exempt Items
 Non-FTE Income of Exempt Items
 TEFRA Cost of Funds
 TEFRA Disallowance (Disallowed Portion)



COMPUTE THE PLAN

Calculating the projected results involves literally thousands of data elements and perhaps hundreds of interactive models. So many calculations take a few seconds, even on the fastest computer. To ensure fast response and accurate results, Compass only calculates on command.

This is what you see when you click the Compute the Plan button:

Click the down arrow to change to the Low or High rate scenario. When you choose a particular rate scenario, all reports reflect that scenario until your next Plan Compute.

The red squares are progress indicators. They will automatically change color as Compute steps are completed. Click the Compute button to start.

The order of operations in the Compute routine are as follows:

1. Compute Individual Accounts
2. Balance the Balance Sheet to Fed Funds
3. Compute Net Income and Income Taxes
4. Add/Subtract the Difference in Income from last Compute to Current Earnings
5. Balance the Balance Sheet to Fed Funds (or Cash)

The final balancing step is to Fed Funds provided that the **Reinvest Net Income** flag is checked. (Please refer to the **Utilities** section of manual under **Chart of Accounts**.) If this flag is left unchecked, the final balancing plug will be to Cash instead. Since large changes in income can lead to large, unwarranted changes in Cash it would then be necessary to review and revise Cash projections from time to time.

All of the balancing accounts that are adjusted by the Compute cannot be modeled, since any model would conflict with balance changes from the compute. These accounts are Fed Funds Sold, Fed Funds Purchased, Undivided Profits, Current Earnings and Cash & Due.

For information on the **Strategic Business Unit (SBU) Compute**, please refer to **The Strategic Business Unit Planning Model** located in the **Consolidation** section of the manual.



COMPUTE PARALLEL RATE SHOCK

Rate Shock is a simulation technique for determining the potential impact of rate changes. Rate shock takes two different forms: income analysis and market value analysis.

RATE SHOCK INCOME

Rate Shock Income is a short-term measurement of interest rate risk. It incorporates the following assumptions by definition:

1. All assets and liabilities are frozen at the amount in place at the time the rate shock analysis begins. Maturities, principal reductions and prepayments are repriced at the shocked rates; the principal remains constant.
2. All Driver Rates are shocked (or changed) by the full amount of the shock. The change for each account is modified by the Pricing Model (if any) applied to that account. That means that the price could change by more or less than the driver change or not change at all.
3. Rate change is either applied all at once (instantaneously) or gradually (ramped) over the years. As the rate shock analysis is designed to be a stress test or worse case measurement, examiners recommend that the rate shock increments in your Compass model be set to instantaneous shocks. Whichever your selection, please make sure your policy guidelines are in sync with these settings in the model, document your decisions and review in ALCO and Board meetings.
4. Net Interest Income is computed and compared by selecting the **Shock Current Balance Sheet and Rates** time horizon from one to four years. The **Shock Interval** may be chosen from the preset menu selection or you may customize it to coincide with your bank's policy limits.

Compute Rate Shock

Current Month is Dec, 2009

Shock Current Balance Sheet and Rates: 2 Years

Shock Future Balance Sheet and Rates: 0 months out

Shock intervals: 100 basis points

Shock levels:

-400 -300 -200 -100 0 100 200 300 400

Ramped Income Shock ☐

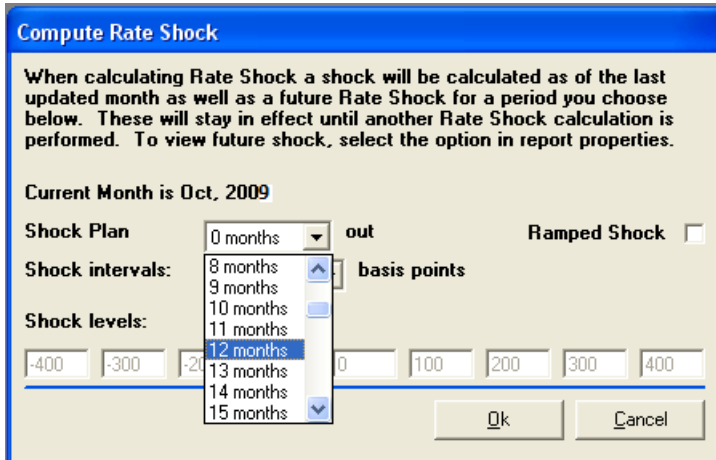
Ok Cancel

Results of the rate calculation can be Income report in the directory in Compass.

shock income seen in the Rate Shock Rate Risk Reports

Future Shock

You can measure the interest rate risk that is inherent in your forecast by using the future shock calculation. Regular Rate Shocks reflect the interest rate risk in last month's balance sheet, while the Future Shock analyzes your forecasted balance sheet. In the example below, the standard Rate Shock (0-months out) would use the balance sheet for October 2009 along with the rates forecasted for November 2009 in the analysis. When the election is made to shock the plan 12 months out, the analysis uses the October 2010 balance sheet and rates forecasted for November 2010.



Compute Rate Shock

When calculating Rate Shock a shock will be calculated as of the last updated month as well as a future Rate Shock for a period you choose below. These will stay in effect until another Rate Shock calculation is performed. To view future shock, select the option in report properties.

Current Month is Oct, 2009

Shock Plan: 0 months out ☐ Ramped Shock

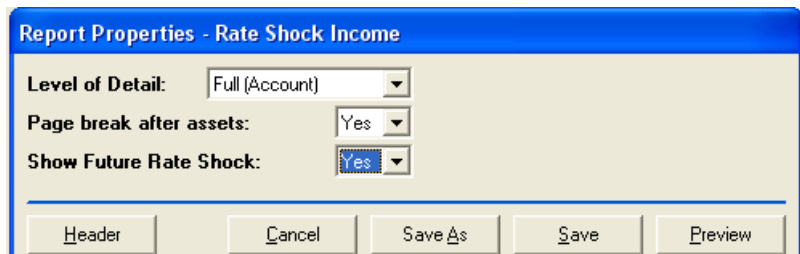
Shock intervals: 8 months basis points

Shock levels: 12 months

Buttons: Ok, Cancel

To calculate rate shocks in the future, simply select the time period and click OK. Compass will store the future values until the next Rate Shock Compute is run.

To view your Rate Risk reports as a future shock, right click on the report and select 'Properties'. Change the "Show Future Rate Shock" option to Yes. To view the current month, change the setting back to No.



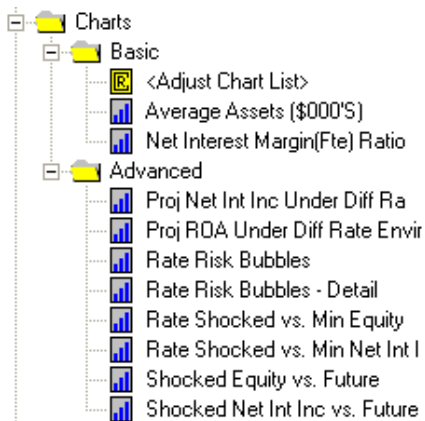
Report Properties - Rate Shock Income

Level of Detail: Full (Account)

Page break after assets: Yes

Show Future Rate Shock: Yes

Buttons: Header, Cancel, Save As, Save, Preview



Graphs depicting Future Rate Shock vs. Minimum Equity and Minimum Net Interest Income can be viewed in the Advanced Charts section in the Reports menu. If you run a rate shock compute 0 months out, the report and chart options are unavailable as there is no data to display.

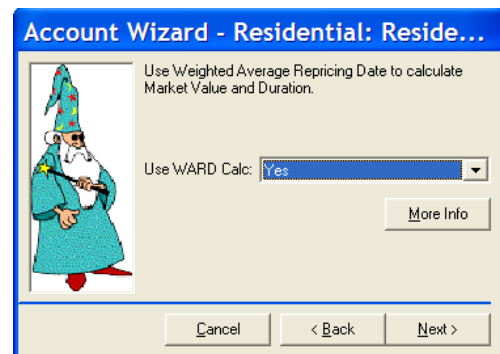
RATE SHOCK MARKET VALUE

Rate shock market value is a longer-term rate risk measurement. It computes the Net Present Value of assets and liabilities. The difference between assets and liabilities is the Market Value of Equity (MVE) also referred to as Economic Value of Equity (EVE).

1. Net present value is calculated by discounting the cash flow (both principal and interest) of all interest bearing assets and liabilities.
2. Non-interest bearing assets and liabilities (with the possible exception of demand deposits) are valued at “book”; there is no change in market value regardless of interest rate levels.
3. Each interest bearing asset and liability account is discounted to its present value by using that account’s price (Offering Rate or Alternate Discount Rate). The price is determined by first shocking or changing the Driver Rates in the first month of your rate projection by the amount of the shock increment, then secondly, deriving the rate for the account from the pricing model for that account.

This process is completed in each of the eight different rate shock increments specified in the Compute Rate Shock calculation box, plus the base rate (Offering Rate in the first projected month).

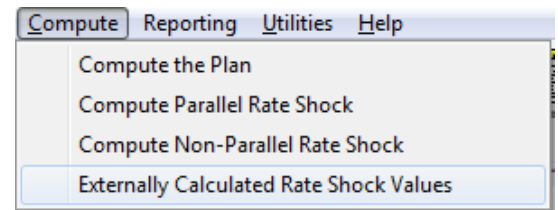
4. All cash flows are discounted until the last dollar of principal and income is collected on the existing portfolio. For some accounts, this amounts to just a few months, for others, more than 360 months of repayments must be considered. For adjustable rate accounts, repricing balances can be included as cash flows by selecting ‘yes’ to using the Weighted Average Repricing Date (WARD) in the Account Wizard setting.



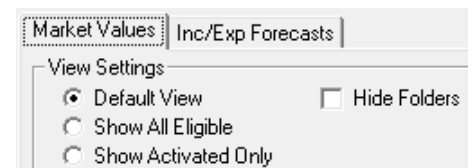
Details of the market value calculation can be seen in the Account Market Value/Duration report in the Reports area of Compass. You will be prompted to select a specific account and target date for review.

EXTERNALLY CALCULATED RATE SHOCK VALUES

If you prefer to define any of the rate shock points, you can manually enter them by selecting **Externally Calculated Rate Shock Values** from the Compute menu. Two options are available: Market Values and Inc/Exp Forecasts. For Market Values, we recommend that you use market values supplied from a reputable source such as your broker or bond accounting software when choosing this option.



For Market Values, at the top left of the screen, there are **View Settings** that can be changed. The *Default View* will display the Securities portfolio and Off-Balance Sheet accounts only. Selecting *Show All Eligible* will open all accounts for editing. *Show Activated Only* will only display accounts that have user defined market values entered and *Hide Folders* will change the view to reflect individual accounts only.



When entering user defined values, click on the box next to the account you wish to activate which will display a check mark and open the account for editing.

View Settings

☒ Default View ☐ Hide Folders
☐ Show All Eligible
☐ Show Activated Only

Shock Level:		-4	-3	-2	-1	0	1	2	3	4
Shock amount during most recent Rate Shock:		-400	-300	-200	-100	0	100	200	300	400
Balance Sheet										
Assets										
Securities										
U. S. Gov't										
	<input type="checkbox"/>	US Treasuries								
U. S. Agencies										
	<input type="checkbox"/>	FHLB Notes								
	<input type="checkbox"/>	US Gov't Agencies								
MBS's										
	<input checked="" type="checkbox"/>	Mortgage Backed Sec		37000	36000	35509	34000	33000		31000

Upon exiting the screen, your work will be auto saved from the **View Settings** menu. Be certain to run all Compute routines so that the values will be reflected on your reports properly.

After computing, the results will show all values manually entered in bold and the account will have an asterisk to the left signifying that it has manually entered market values. Any market values not provided by the user will be calculated by Compass according to the standard present value formula.

< Rate Shock Market Value									
Interest Rate Floor									
Rate Shock - Market Value									
As of the end of June, 2011									
	-400	-300	-200	-100	0	100	200	300	400
Securities									
MBS's									
*Mortgage Backed Sec	35,111	37,000	36,000	35,000	35,509	34,000	33,000	32,000	32,625

* Some market values are being externally derived and manually entered into Financial Compass. They may not correspond to the value calculated by Financial Compass.

The option for **Market Values** is not available for the non-parallel rate shock. The only values that will transfer to the non-parallel rate shock results will be Scenario Zero or the Zero Point from the parallel rate shock results, as this rate scenario is constant between both analyses.

< NP Rate Shock Market Value									
Interest Rate Floor Non-Parallel Rate Shock - Market Value As of the end of June, 2011									
	Scen 0	Scen 1	Scen 2	Scen 3	Scen 4	Scen 5	Scen 6	Scen 7	Scen 8
Securities									
MBS's									
Mortgage Backed Sec	35,509	34,410	34,113	34,650	34,727	33,482	33,151	33,356	34,650

Off-Balance Sheet items such as Interest Rate Floors, Caps and Swaps have market values that can be entered just like security market values. As you will have modeled these instruments with both a notional and contra amount, we suggest you enter the market values in the notional account and enter a zero for the market value for the contra account.

Once the Compute routines are performed, your numbers will be reflected properly in the report:

Loans										
Interest Rate Contracts										
<input checked="" type="checkbox"/>	Interest Rate Floor 5%	1200	1100	1000	900	765	650	500	400	300
<input checked="" type="checkbox"/>	Interest Rate 5% Floor Contra	0	0	0	0	0	0	0	0	0
<input checked="" type="checkbox"/>	Interest Rate Floor 6%	1400	1300	1200	1100	850	700	650	575	450
<input checked="" type="checkbox"/>	Interest Rate 6% Floor Contra	0	0	0	0	0	0	0	0	0

< Rate Shock Market Value									
Interest Rate Floor Rate Shock - Market Value As of the end of June, 2011									
	-400	-300	-200	-100	0	100	200	300	400
Interest Rate Contracts									
*Interest Rate Floor 5%	1,200	1,100	1,000	900	765	650	500	400	300
*Interest Rate Floor 6%	1,400	1,300	1,200	1,100	850	700	650	575	450
Total Interest Rate Contracts	2,600	2,400	2,200	2,000	1,615	1,350	1,150	975	750

If using the **Market Values** option with the Strategic Business Unit model, values must be entered into the branch where the account balances reside, not at the Total Bank level. For Holding Company consolidations, values are to be keyed in at the bank or company level.

Inc/Exp Forecasts are used for the Rate Shock Net Income report. For additional information on this report, see Appendix A.

Market Values Inc/Exp Forecasts									
View Settings									
<input checked="" type="radio"/> Default View <input type="checkbox"/> Hide Folders <input type="radio"/> Show All Eligible <input type="radio"/> Show Activated Only									
Shock Level:	-4	-3	-2	-1	0	1	2	3	4
Shock amount during most recent Rate Shock:	-200	-150	-100	-50	0	100	200	300	400
Non-Interest Income									
Loan Fees	1,135,200	1,135,200	1,035,200	935,200	835,200	735,200	635,200	535,200	535,200
Non-Interest Expense									
Loan Loss Provision									



COMPUTE NON-PARALLEL RATE SHOCK

STATIC SIMULATIONS VERSUS DYNAMIC SIMULATIONS

Your Financial Compass Non-Parallel Shock Module calculates risk based upon a static balance sheet assumption, the same basis as the Parallel Shocks. Rate paths are deterministic using scenarios created by a sophisticated statistical analysis of historical yield curves. Dynamic balance sheet risk can also be assessed using Financial Compass. Please contact Support if you'd like more information on dynamic simulations.

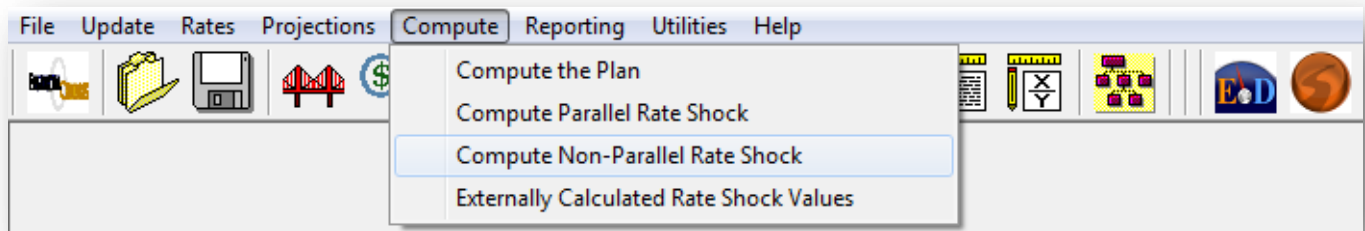
Basis Risk, Yield Curve Risk and Option Risk are evaluated using likely and unlikely scenarios. The likely scenarios will include forecast yield curves from the Blue Chip Financial Forecasts[®]. Unlikely scenarios will be derived using Plansmith's Yield Shock[®] formulas which analyze over twenty years of yield curve history in order to determine the likelihood of a particular rate environment in comparison to the current yield curve.

The Unlikely Scenarios will include changes in interest rates of a significant magnitude (e.g., up and down 300 and 400 basis points) across different points of the yield curve. For example, a 400 BP rise in short term interest rates while long term rates remain relatively unchanged. The module includes an option to run the income analysis for periods greater than one year if needed.

The Financial Compass software provides for an unlimited number of rate scenarios to be analyzed, but the automated rate update feature will pull in a limited number of stress scenarios which are dependent upon the current level of interest rates.

HOW THE NON-PARALLEL RATE SHOCK MODULE WORKS

The Non-Parallel Rate Shock module is available by subscription. Once you have subscribed, your software will be updated to include a new Compute button on your Navigation Bar as well as a new Compute option on the Compute menu drop down.



In order to use the Non-Parallel Rate Shock module, you will need current Treasury Yield Curve rates in your Financial Compass Rate Forecast, Plan Rate environment. These rates comprise the current Treasury Yield Curve

and are the basis for the rate simulations. It is recommended that all financial Compass clients update their Rate Forecast on a monthly basis. Having forecasted rates is not a requirement as it is the current rate environment that is analyzed.

The current rate environment is the first projected month's rates. In the example below this is October.

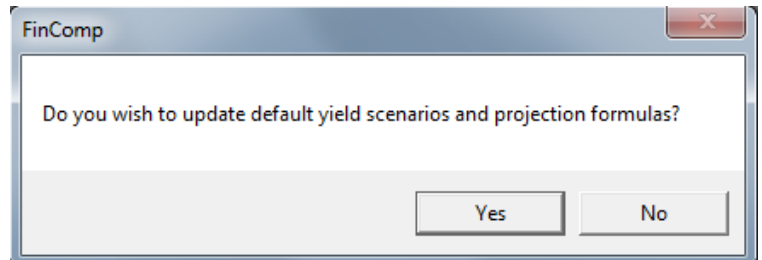
	Fed Funds	3 mo Tbill	6 mo Tbill	1 yr CMT	2 yr CMT	3 yr CMT	5 yr CMT	10 yr CMT	30 yr CMT
Sep	0.19	0.15	0.19	0.26	0.48	0.74	1.41	2.65	3.77
Oct	0.19	0.15	0.19	0.26	0.48	0.74	1.41	2.65	3.77
Nov	0.19	0.15	0.19	0.26	0.48	0.74	1.41	2.65	3.77
Dec	0.19	0.15	0.19	0.26	0.48	0.74	1.41	2.65	3.77

AutoUpdate

Rate Forecast data can be downloaded automatically by selecting the AutoUpdate button in the Rate Forecast screen.



Select the Non-Parallel Rate Shock option and you will be prompted to load the pre-constructed yield scenarios from the Plansmith website. We suggest you ***always*** select 'Yes'. **DO NOT** select 'Yes' if you are accessing an archived database where you want to retain the original rates.



Status bar item:

Bank name:

Min Equity Ratio:

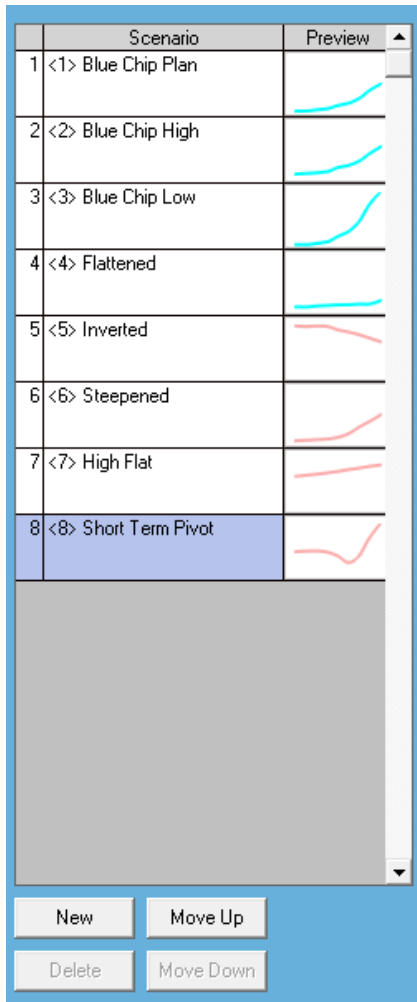
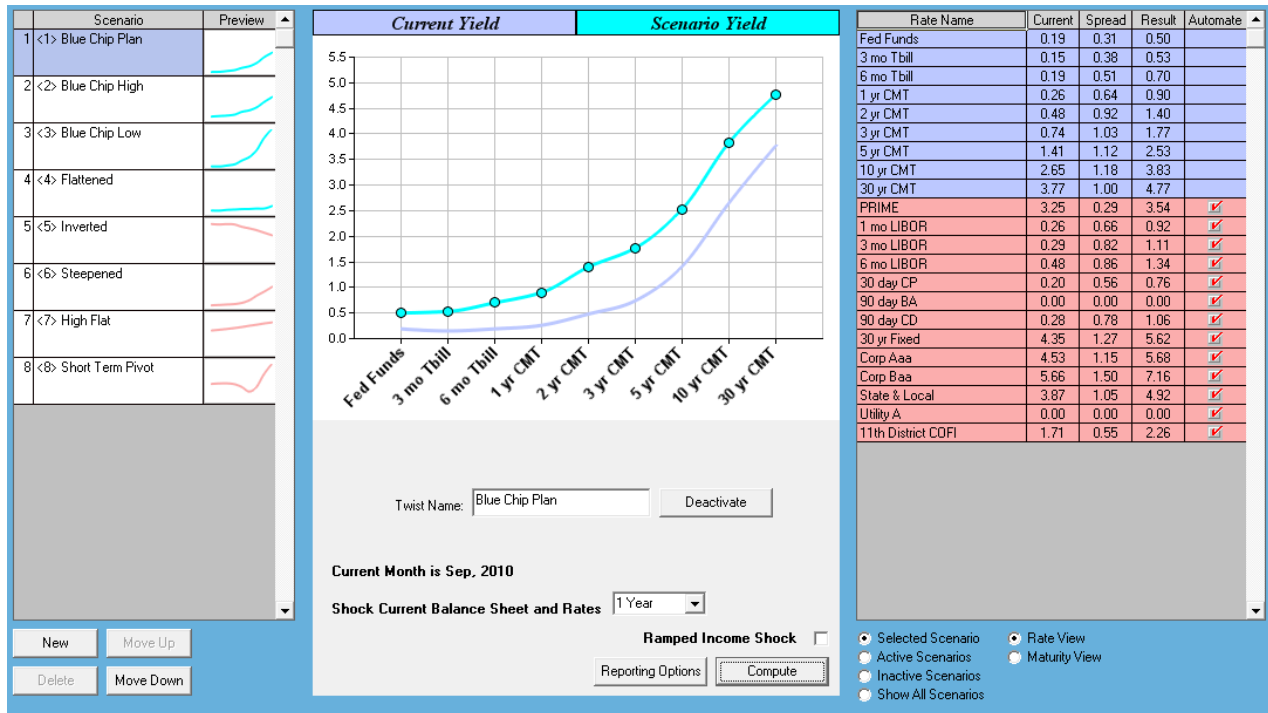
Yield Scenario Updates:

Auto Plan Backup ☐

This prompt can be turned off if desired by selecting Utilities, Options and General Tab. We suggest you set the option to 'Always prompt first'. Do not prompt first will automatically pull in the latest rates no matter which database you open and Never auto-update will not pull in any rates.

The rate scenarios downloaded will include three likely scenarios supplied by the Blue Chip Financial Forecasts®, along with other likely and unlikely scenarios. Stress scenarios will contain rate shifts of sufficient magnitude and across different tenors.

After selecting 'Yes' to updating default yield scenarios, you will enter the Non-Parallel Rate Shock Module screen. This screen is comprised of three main sections:



At left is the Scenario List. These are the non-parallel rate environments being analyzed. The default is a maximum of eight scenarios allowed currently, but more can be made available. New scenarios can be created by selecting the 'New' button and scenarios can be rearranged using the Move Up and Move Down buttons.

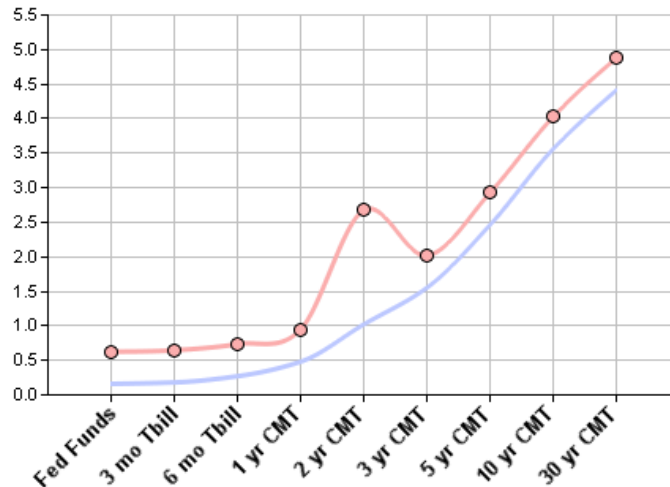
The middle section is a close up view of the scenario selected at left as well as other options. Make sure the date displayed is the proper rate shock date. The right hand section shows the numeric values for each index and lists the Treasury Yield Curve and other Driver Rates present in the Financial Compass Rate Forecast screen.

Scenario List

Each Scenario represents a change in the Treasury Yield curve from the current position. As U.S. Treasury rates change over time, the default scenarios will adjust accordingly and will automatically update in the model.

We suggest you use the default scenarios downloaded each month as they will include likely and unlikely scenarios based upon the current level of interest rates. Likely scenarios appear in Blue and unlikely scenarios appear in Red.

In order to test a scenario for its likelihood, Plansmith's Yield Shock[®] formulas evaluate the likelihood that the current Treasury Yield curve will change from its current position to the scenario position.



The likelihood of any scenario is derived using three tests, as follows:

1. If any Yield Curve rate is at or beyond either 0% or 100% it is flagged as unlikely.
2. If a single rate is clearly outside of the norm of the other rates, it is flagged as unlikely (see Figure 11). This test basically looks at the slope between adjacent rates. If a single point is adjacent to both a positive and a negative slope, then it measures their differences, and if the differences are too great, it marks it as unlikely. Special cases are used for the first and last rates on the curve.
3. The third test is much more complex. We use a utility called the *RateHistoryAnalyzer* that measures a collection of ten heuristics based off of historical data over the past 20 years. The utility then measures how many actual rate environments fall within two standard deviations of the mean on each heuristic. Each time a rate environment is within the margins, it is given a "point." The point scores are then evaluated, and any rate environment that falls within two standard deviations of the mean points is rated likely. The remainders, approximately 5% of all rate environments over the last 20 years, are marked as unlikely. These measurements are repeated taking into account whether the rate environment was for a 1, 2, 3, 4, or 5 year rate shock. These heuristics are then downloaded each month into Financial Compass, and each Yield Shock scenario is evaluated against the appropriate set of heuristics.

What the detail above means is that Plansmith's evaluation of interest rate scenarios is substantiated using 20 years of interest rate history. User defined scenarios also are subjected to this analysis as well.

Please keep in mind that a scenario may change between likely and unlikely if the shock time frame is changed between one and two years. If this occurs, you will see the curve color change between red and blue.

If you wish to Deactivate a scenario so that it will not be factored into the Non-Parallel Rate Shock, simply click on that scenario on the list at left and then click on the Deactivate button in the middle of the screen. The scenario will become shaded, meaning it is deactivated.



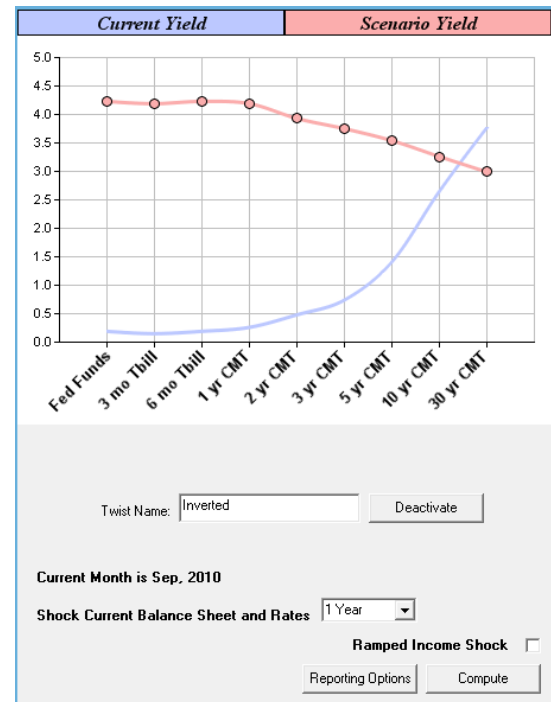
Twist Name:

The middle portion of the screen shows a more detailed view of the particular rate scenario selected along with the current yield curve. The scenario at right is unlikely and shows in red, while the current Treasury Curve is shown in blue.

The Current month in the Non-Parallel Rate Shock Module is the same as the Parallel Shock. It should show as the last updated month.

Below the data is the option to perform the income simulation on a period greater than one year. The default is for one year, but you should change the time period to match the same period as the income simulation run for the parallel shock.

There is a ramped shock option which changes interest rates gradually from the current position to the position reflected in the scenario. The change will be made incrementally within the time frame specified above.



Rate Name	Current	Spread	Result	Automate
Fed Funds	0.20	4.03	4.23	
3 mo Tbill	0.10	4.09	4.19	
6 mo Tbill	0.20	4.03	4.23	
1 yr CMT	0.30	3.89	4.19	
2 yr CMT	0.50	3.43	3.93	
3 yr CMT	0.76	2.99	3.75	
5 yr CMT	1.30	2.24	3.54	
10 yr CMT	2.70	0.56	3.26	
30 yr CMT	4.00	-1.01	2.99	
PRIME	3.30	4.11	7.41	<input checked="" type="checkbox"/>
1 mo LIBOR	0.25	4.13	4.38	<input checked="" type="checkbox"/>
3 mo LIBOR	0.30	4.26	4.56	<input checked="" type="checkbox"/>
6 mo LIBOR	0.45	4.27	4.72	<input checked="" type="checkbox"/>
30 day CP	0.20	4.06	4.26	<input checked="" type="checkbox"/>
90 day BA	0.00	0.00	0.00	<input checked="" type="checkbox"/>
90 day CD	0.27	4.37	4.64	<input checked="" type="checkbox"/>
30 yr Fixed	4.30	1.11	5.41	<input checked="" type="checkbox"/>
Corp Aaa	4.70	-0.28	4.42	<input checked="" type="checkbox"/>
Corp Baa	5.80	-0.12	5.68	<input checked="" type="checkbox"/>
State & Local	4.20	-0.43	3.77	<input checked="" type="checkbox"/>
Utility A	0.00	0.00	0.00	<input checked="" type="checkbox"/>
11th District COFI	1.65	1.44	3.09	<input checked="" type="checkbox"/>
Comm Var W/Floor	5.25	3.16	8.41	<input checked="" type="checkbox"/>
Comml Trm Var w/ Flr	5.25	2.91	8.16	<input checked="" type="checkbox"/>
Comm Lines Var W/FL	5.20	2.67	7.87	<input checked="" type="checkbox"/>
Comm R/E Var W/FL	5.65	2.68	8.33	<input checked="" type="checkbox"/>
Comm R/E Ln Var W/FL	5.25	3.16	8.41	<input checked="" type="checkbox"/>
HE Lines Var W/FL	4.75	3.16	7.91	<input checked="" type="checkbox"/>
Pers Rev Line W/FL	5.00	3.41	8.41	<input checked="" type="checkbox"/>

☒ Selected Scenario
 ☒ Rate View
 ☐ Active Scenarios
 ☐ Maturity View
 ☐ Inactive Scenarios
 ☐ Show All Scenarios

To run the calculations for the scenarios, click on the Compute button. If you perform this compute on a branch model (SBU) or Consolidation the calculation will take longer as it is performed on all units just like the Parallel Rate Shock.

The right hand side of the screen displays the Treasury Curve rates (Blue) for the scenario selected along with other Driver Rates (Red and Orange) currently in the model.

The rate indices in red are default Driver Rates from the Rate Forecast. In each scenario, a model is used to establish values for these rates based on the values of the Treasury Curve rates. For example, if our multiple linear regression analysis determines that a correlation exists between the 3 mo Libor and the 3 or 6 Month TBill, then we can model what the Libor rate should be if the TBill rate changes within a scenario.

The multiple linear regression analysis and model are key components of the Non-Parallel Rate Shock Module. The module analyzes 20 years of rate history to develop the correlations that will, in turn, be applied to each rate scenario. Thus, in a scenario in which the short term Treasury rates rise (as shown at left), other short term rates, like the 1 mo LIBOR, will also rise.

These correlations are adjusted monthly with continual rate index input.

Unchecking the boxes for the red or orange rates will disable the correlation, so the rates will not change. As in the example above, if you leave the Libor rates checked, they will change according to the correlation to the Treasury rates when each scenario is loaded. If unchecked, the rates in red and orange will not change. We recommend you leave the rates checked so that the rates change with each Treasury Yield Curve that is loaded into the model.

Each rate index in red will appear with a coefficient of multiple determination, or R^2 as below.

Non-Yield Curve Rates	Coefficient of Multiple Determination (R^2)
PRIME	99.69%
1 mo LIBOR	98.33%
3 mo LIBOR	98.48%
6 mo LIBOR	98.28%
30 day CP	99.45%
90 day CD	98.74%
30 yr Fixed	91.61%
Corp Aaa	92.88%
Corp Baa	73.97%
State & Local	84.35%
11th District COFI	92.95%

The R^2 factor is a statistical measurement of the historical relationship between the Non-Yield Curve Rates rates and the treasury curve and represents the percentage of the variance in the data that was accounted for in the model. The closer the R^2 is to 100%, the better the model is able to fit historical data; and, as it is our hypothesis that any historical correlations will be maintained in the short term, a higher R^2 provides us greater confidence in our forecast for non-Treasury rates given a particular Treasury rate environment. These factors will change over time as more rate history is accumulated.

The Rate Indices in Orange are Custom Driver Rates created by the user. Normally, these drivers are linked to the rate indices (Blue or Red), so that when the base driver changes, they will change, too. A Commercial Fixed custom driver linked to Prime, would automatically change in a Non-Parallel shock provided both Prime and Commercial Fixed remain checked. If your model contains Driver Rates that are not linked to any index, they will not automatically change in the Non-Parallel Rate Shock Module and will show on the list without a red check box as shown below:

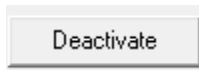
Driver Not Linked	3.00	-3.00	0.00	NA
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Creating New Scenarios

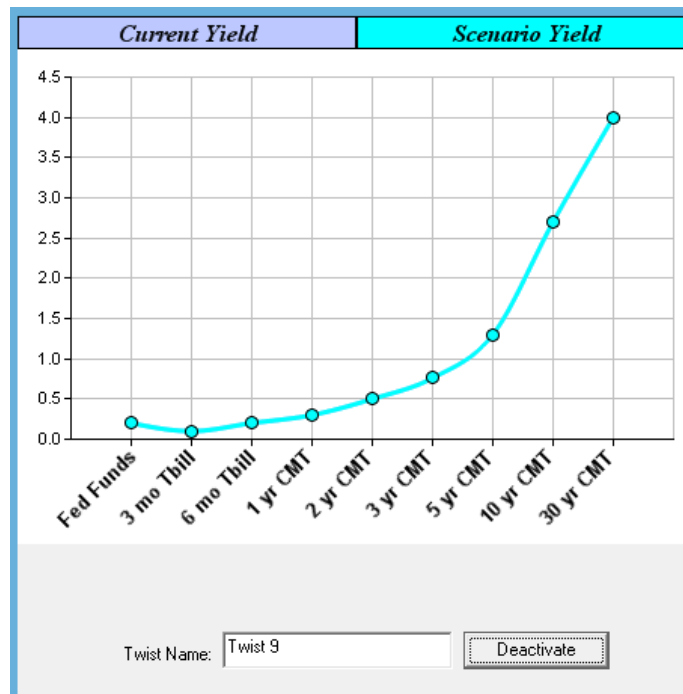
While it is recommended that you use the default scenarios provided each month, you may need to create a new scenario or adjust an existing one. If you create a new scenario with eight active scenarios, the new one will show on your list as Deactivated. This means you will need to Deactivate another one and Activate the new one in order to use it in the analysis.



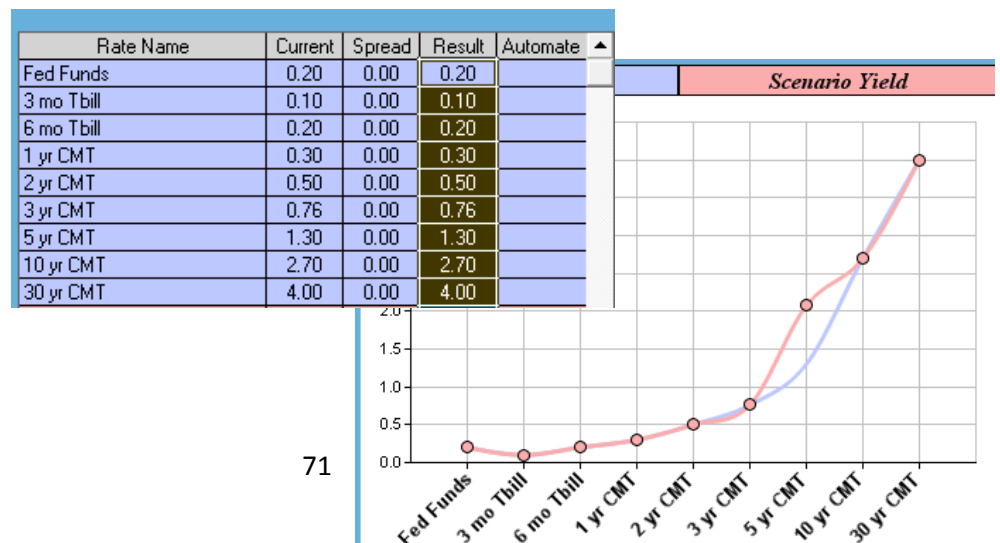
To do this, click on an Active scenario and select Deactivate.



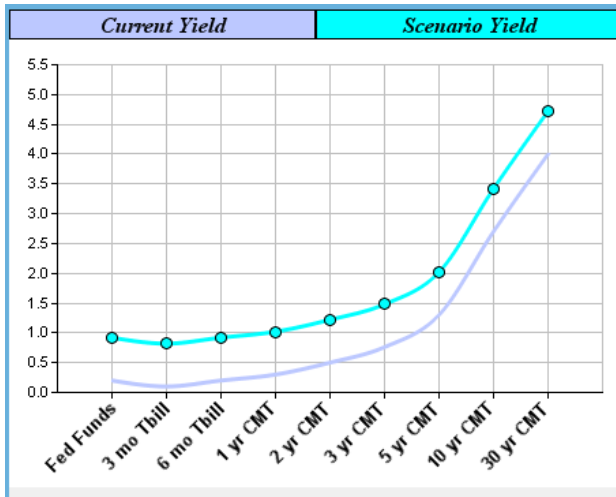
Then, click on the new scenario, and select Activate. Your new scenario will appear with only the current Treasury Yield Curve as below:



Now, you'll need to create the scenario. This can be accomplished in a couple of ways. The first way would be to type or copy rates into the rate list at right. You can enter the rates into the Result column or enter a spread.



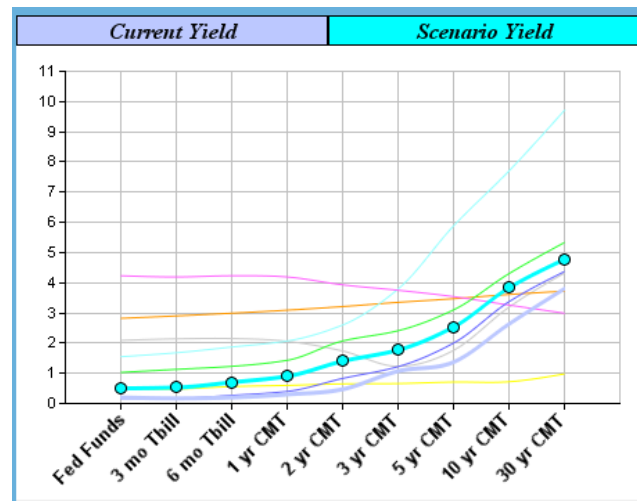
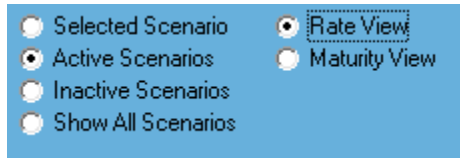
The second method is to drag the Yield Curve or various points to the shape you desire.



Right clicking on the current curve will allow you to drag the entire curve at once.

Note that the curve will automatically change color if it is deemed likely or unlikely by the *RateHistoryAnalyzer*. Non Yield Curve rates will change automatically based upon the new curve.

In order to view greater detail for each scenario, or show all scenarios on the screen, various display options are available by selecting your desired view. Here we are viewing all Active Scenarios:



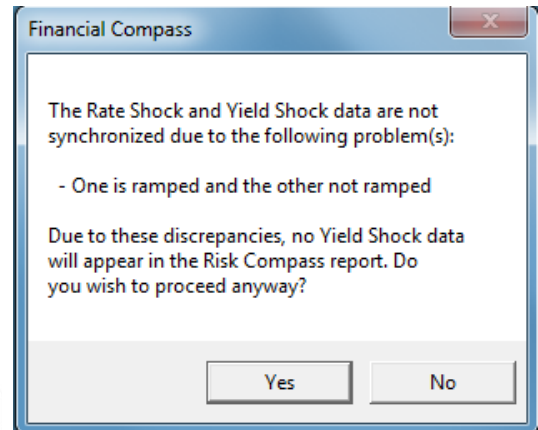
Viewing Results

The Non-Parallel Rate Shock results can be accessed via the Risk Compass report package as well as within the Compass reports and using the Excel Add In.

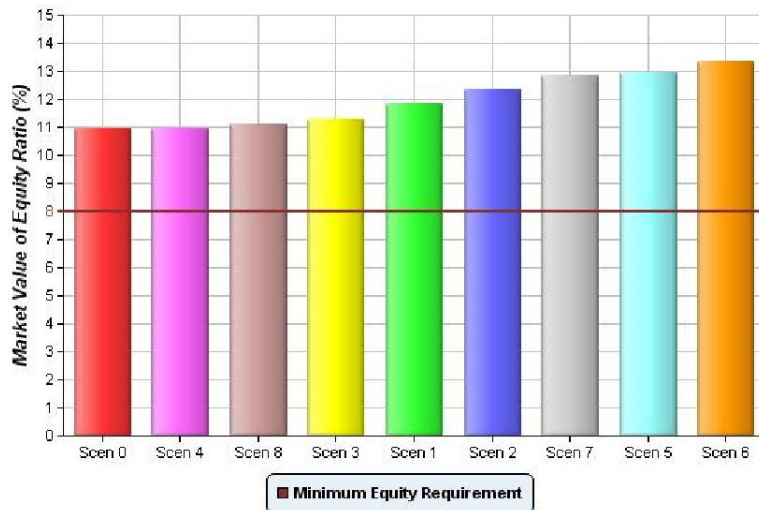
RISK COMPASS

We suggest you perform the parallel and non-parallel shocks using the same parameters. If you have not set them as the same, you may get a message like this:

If you proceed, the parameters will not be equal and non-parallel shock data will be absent from the report.



Non-Parallel Rate Shock Market Value of Equity



The Risk Compass report package is set up to automatically adjust for the Non-Parallel analyses. Two new charts provide results for the NIM and EVE simulations.

Comparison for each simulation is to the same data (Zero Point) as the Parallel shock. The Zero Point data will show in red. The minimum requirement for the income simulation will default to the Minimum Margin ratio from the Risk Tolerance. The minimum requirement for the EVE will default to the minimum equity ratio as designated in the Utilities, Options.

Details of Worst-Case Scenarios

	Zero Point	Scen 4	Change	Scen 8	Change
Asset MV	276,082	276,643	0.20%	275,153	-0.34%
Liability MV	245,893	246,385	0.20%	244,659	-0.50%
MV Equity	30,189	30,258	0.23%	30,494	1.01%
MV Equity Ratio	10.93	10.94		11.08	

The Bank meets its minimum equity requirement of 8.00% in all rate scenarios.

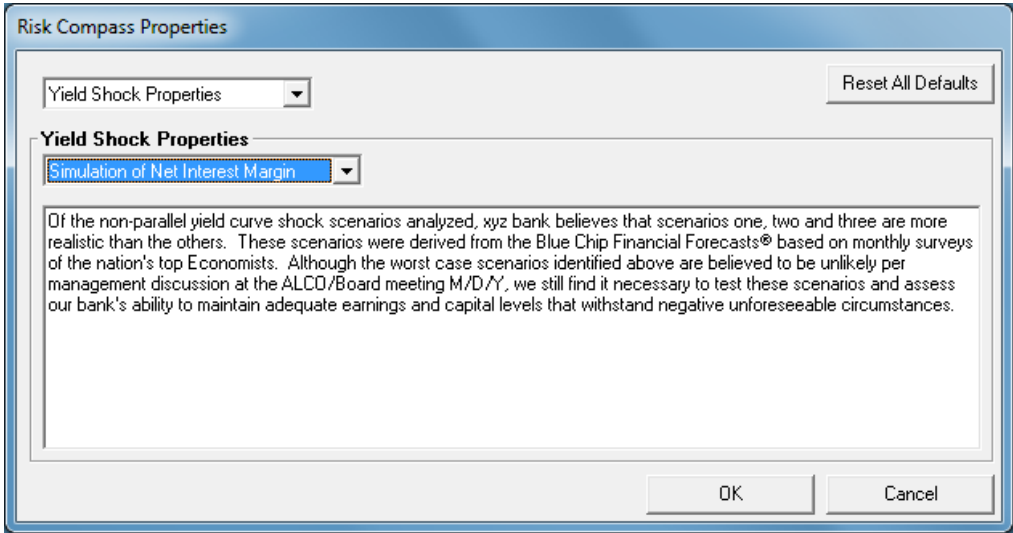
Risk Compass will detail the results for the two worst case scenarios. If any scenarios are outside the policy guidelines they will be listed as in the example below.

The Bank is under its minimum equity limit of 10.00% in scenarios 2, 5, 6 and 7.

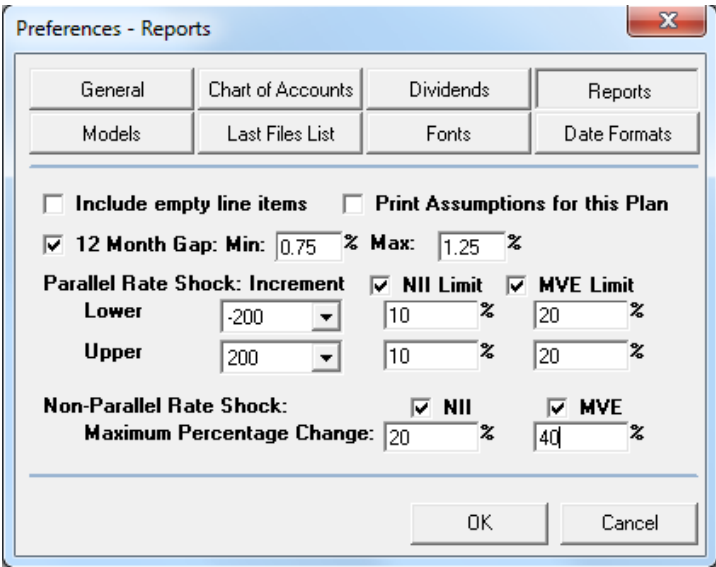
Viewing Results



The Reporting Options allow for the entry of verbiage in each of the non-parallel analyses. It is recommended that your institution add commentary regarding the scenarios used in the analysis. If you are unsure of what to enter, we can recommend sample language for you to use.



One issue you may experience is the need to print assumptions for multiple branches or banks. The Risk Compass package will default to printing from the Total Bank or Total Consolidated database which may not contain assumptions. In order to print the assumptions used in each unit or branch, open the branch or unit; select Utilities, Options, and Reports. Select the Print Assumptions for this Plan.



Assumptions	45
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Adjustable Rate Repricing Relationships	55
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Your Risk Compass Table of Contents will adjust to add the branch assumptions you've added. Please be careful as adding all branch assumptions will increase the number of pages in the report package substantially.

Setting Report Policy Guidelines

In order for policy guidelines to appear on the Risk Compass report, you'll need to enter them in Utilities, Options, Reports. By default, all settings will be checked.

For the Gap section, enter a range for the RSA/RSL ratio. The guideline will appear as below and will alert you if you are outside of the Gap parameters.

The Bank **exceeds** its risk guideline of between 0.95 and 1.30 RSA/RSL for the Gap Analysis.

For the Rate Shock, you may set guidelines for NIM and MVE (EVE) which will be included in the report as below:

The Bank is within its risk guideline of -12% change in Net Interest Margin at +/-300 BP rate change.

The Bank is within its Market Value of Equity guideline of -25% at +/-300 BP rate change.

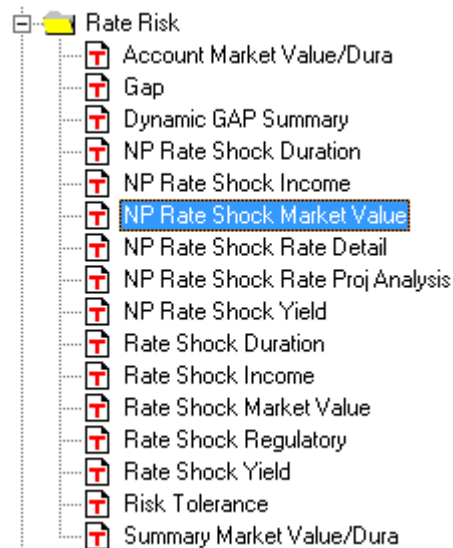
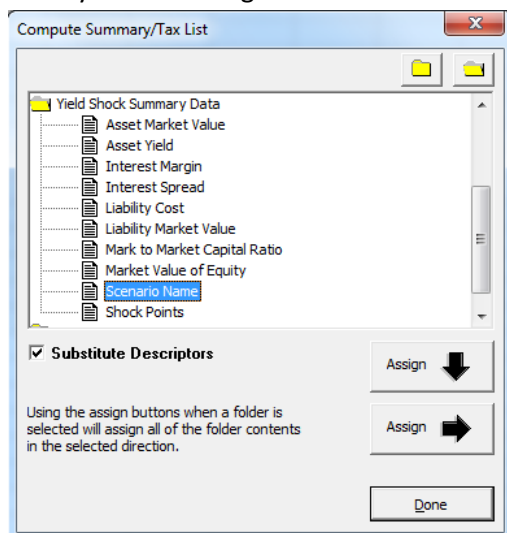
The limit will be measured at the rate shock increment specified. The shock increment is displayed in the report as below:

Parallel Rate Shock Market Value of Equity

		Rates Dn	Zero	Rates Up	
	Change	-300 bp	Point	300 bp	Change
Asset MV	0.92%	278,623	276,082	270,660	-1.96%
Liability MV	1.12%	248,646	245,902	235,913	-4.06%
MV Equity	-0.67%	29,977	30,180	34,747	15.13%
MV Equity Ratio		10.76	10.93	12.84	
Duration of Equity is 70 months or 5.85%					

The Bank is within its Market Value of Equity guideline of -25% at +/-300 BP rate change.

The results for the Non-Parallel Rate Shock may be viewed in the Financial Compass Reports section. Additionally, the Non-Parallel Rate Shock data may be accessed using the Excel Add In, under the Yield Shock Data and Yield Shock Summary Data headings.



Please be aware that non-parallel durations and non-parallel market values will not be displayed for any accounts that are flagged as being part of a Hedge in the Account Wizard.

ENSURING RATE SHOCK ACCURACY

Rate Shock Accuracy requires attention to a few modeling details:

- Maturities must be equal to the ending balance. Even small differences will cause large errors in rate shock calculations.
- Pricing models must be used for any accounts that are less volatile in price than outside rates like Prime or Fed Funds. If an account has no model, it will be shocked by the full amount of the shock increment. For example, in a 400 basis point rate shock, a savings account with a Manual rate of 1% would decline to a zero rate and would climb to a rate of 5%, which is unrealistic.
- Pricing models must be broad enough to cover any possible levels of shocked rates. If the driver reaches a rate that is higher or lower than the highest or lowest rate in your pricing model, an unreasonable price may result. For example, if Prime were currently 5%, a 400 basis point rate shock would change Prime to as low as 1% and as high as 9%. Plansmith recommends that your pricing models cover Driver Rate levels from 0% to 10%, or higher.
- Prepayment models are necessary if your assets and liabilities have longer terms, or if they have “optionality”. Optionality means that your customer (or obligor on a bond) has the legal right to early redemption. The major categories for this are (1) callable bonds, (2) mortgage loans or mortgage backed securities, and (3) Certificates with maturities in excess of one year. The fact that customers act in their own best interest, not the financial institution’s, creates what is called “Convexity” in the market value calculations. Please refer to the Prepayment Utility section of the User’s Guide for information on applying prepayment models.

HOW MUCH SHOCK IS ENOUGH?

The answer will change from time to time. Consult your financial institution’s policy or with your regulator as a starting point. Remember that rate shock is designed as a kind of “worst case” test. It is prudent to use maximum shock amounts that are larger than any reasonably predictable volatility in interest rates over the next few years.

WHAT IF THE RESULTS ARE BAD?

It’s ironic that Rate Shock Income and Market Value move in opposite directions for many financial institutions. Regulators are currently focused on Market Value measures, however, and market values are impacted most by (1) rising rates and (2) long maturities. You could liquidate these long positions, but the cost would probably be prohibitive. A more reasonable solution is to revise asset/liability projections to concentrate on safer loan, investment and funding choices in the future. Compass lets you experiment with various plans, and compute Prolonged or Future Shock results to demonstrate that your action plan will work. To perform a future shock, just select how many months out you’d like to run the shock in the *Shock Future Balance Sheet and Rates* in the Compute Rate Shock calculation box, then select this option for viewing in the report properties menu.

DECAY RATES

A decay rate is an artificial maturity that can be applied to Gap, to Market Value, or to both within Financial Compass. Decay Rates are normally applied to non-maturing deposit accounts in Gap analysis to reflect repricing betas. Decay rates are also used for simulating a maturity structure for present value calculations in EVE. Non-maturity deposits include Savings Accounts, Money Market Accounts and NOW accounts. Decay rates may also be applied to non-interest bearing checking accounts (not used in Gap).

The most difficult aspect of using decay rates is to determine which artificial maturity is correct. It is expected that financial institutions of all sizes assess the loss of their non-maturing balances due to non-competitiveness over time. This analysis can be completed by the bank or a third party vendor, including Plansmith's Educational and Advisory Services who can assist in this analysis.

Another method of calculating decay rates is to determine repricing speed. This is accomplished by performing an historical analysis and figuring the percentage of a non-maturing account's historical pricing change compared to outside rate indices.

Compass will automatically calculate an estimated Decay rate (in months) for each non-maturing deposit account. Compass compares the relative rate change of each non-maturing deposit account to the 6 month T-Bill rate over 72 months or less depending on the amount of history loaded in the plan.

Compass calculates a **Rising Beta** indicating how much the product rate increased as rates rose by 100 basis points. Conversely, a **Falling Beta** is calculated to determine how much the product rate decreased as rates fell by 100 basis points.

Compass uses the **Average Beta** to calculate that portion of an account's balance that reprices annually by multiplying it by the end of month balance. Further dividing this product by 12 gives us the amount of the balance that reprices each month. To calculate the decay rate in months, Compass divides the EOM balance by the monthly repricing balance.

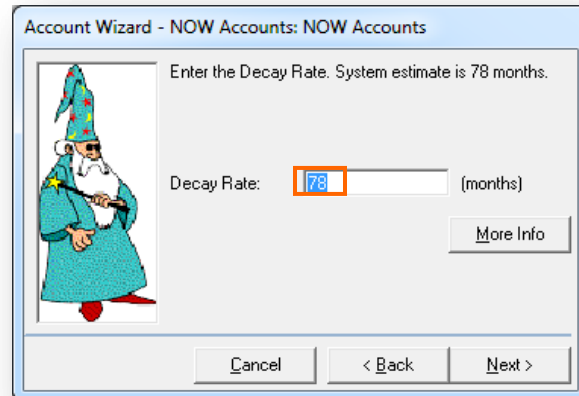
In the following example, Compass calculates 15 basis points (rounded from .1538) as the Average Beta for NOW accounts.

Rising Beta	NA	0.00	<input type="text" value="0.00"/>
Falling Beta	NA	0.01	<input type="text" value="0.30"/>

Multiplying the end of month balance in NOW accounts of \$54,608M by the Average Beta of 15 basis points and dividing by 12 gives us the balance repricing per month of \$700K. When applied to GAP, you will see this amount distributed throughout the selected time buckets:

		0-1	1-3	3-6	6-12	12-24	24-36	36-48	48- 49	> 49	Totals
	Immediate	months	months	months	months	months	months	months	months	months	
NOW Accounts											
NOW Accounts	0	700	1,400	2,100	4,201	8,401	8,401	8,401	700	20,303	54,608

Dividing the end of month balance of \$54,608M by the monthly repricing amount of \$700K determines the decay rate in months, or 78.



Account Wizard - NOW Accounts: NOW Accounts

Enter the Decay Rate. System estimate is 78 months.

Decay Rate: (months)

[More Info](#)

[Cancel](#) [< Back](#) [Next >](#)

The Decay Rate estimate will be visible within the Account Wizard screen, as well as within the Account Properties Editor. It is updated monthly as new actual data is loaded, but it is for reference purposes only and will not be loaded directly into the system. Decay rates for Demand Deposits are based on the weighted average of all NOW accounts and all calculations are capped at 100 months.

Regardless, if you are entering Decay Rates based on your own historic analysis, that of a third party vendor or one that has been calculated by the Compass system, Decay Rates are entered manually through the Account Wizard. If the account is set as *Non-Maturing*, you will be prompted to determine whether the account requires a decay rate.



Account Wizard - NOW Accounts: NOW Accounts

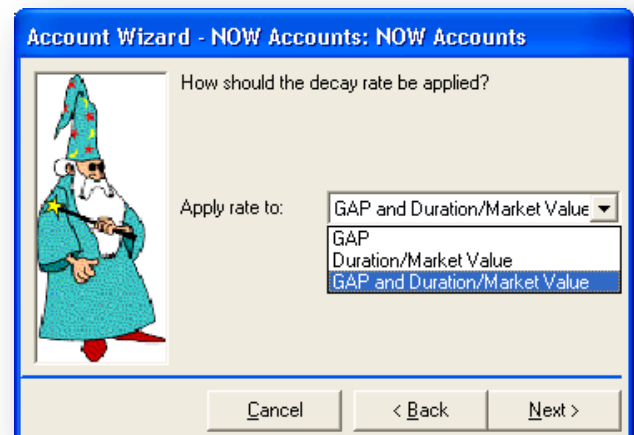
Does this account require a decay rate?

Choices:

[More Info](#)

[Cancel](#) [< Back](#) [Next >](#)

If the answer is yes, the Wizard will let you choose to apply the decay rate to **Gap**, to **Duration/Market Value** or to both. You will then be asked to enter the decay rate in months. Compass will simulate maturities in equal monthly amounts over the number of months chosen to fully amortize the beginning balance.



Account Wizard - NOW Accounts: NOW Accounts

How should the decay rate be applied?

Apply rate to:



[Cancel](#) [< Back](#) [Next >](#)

In order to create a value change to accounts using a decay rate, it may be necessary to choose an **Alternate Discount Rate** in addition to the Decay Rate. The use of an Alternate Discount Rate means that the price on the product (offering rate) is not used to value the instrument. The value of the instrument is derived from the difference between the price on the product (what you pay) and the market if you were to borrow similar term money. Essentially, you are matching the discount rate to the average life of the instrument. For example, if the Decay Rate on NOW accounts is 78 months, the average life is one half the decay rate or 39 month, or 3.25 years. In this example, the alternate cost for borrowing money at a similar term would be at the 3 year rate. In the Account Wizard, the Alternative Discount Rate would be set to the 3 year CMT. You may be asked by your examiners to use a borrowing rate such as an FHLB rate for a similar term. To model this, you will need to set up a new Driver Rate in the Rate Forecast screen and manually key in the Driver Rates.





REPORTING

Literally thousands of reports and graphs are instantly available in Compass. Notice the template  symbol to the left of many of the reports. These lines contain a default report format that can be modified to your specific needs. Once modified and saved as a custom report format identified with the  symbol, you will be able to view the latest computed data in the exact format you have chosen.

Directory		Balance Sheet						
<ul style="list-style-type: none"> Reports <ul style="list-style-type: none"> Chart of Accounts <ul style="list-style-type: none"> Chart of Accounts Custom Reports Financial Reports <ul style="list-style-type: none"> Balance Sheet Capital Adequacy Income Statement Rate Risk <ul style="list-style-type: none"> Account Market Value/Dura Dynamic GAP Summary Gap Rate Shock Duration Rate Shock Income Rate Shock Market Value Rate Shock Regulatory Rate Shock Yield Risk Tolerance Summary Market Value/Dura Rate Reports <ul style="list-style-type: none"> Driver Rates Offering Rates Yields and Costs 		Sample Bank Balance Sheet Average Balance \$000's						
		Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	Jul 2008
Assets								
Cash & Due		4,835					19	4,662
Fed Funds Sold		11,83					2	14,128
Securities		62,82						65,314
Loans							3	283,120
Loan Loss Reserve		(1,35)						(1,805)
Fixed Assets		10,83					3	13,838
Investment Loss Reserve								0
Goodwill								0
OREO		1,78						0
Other Assets		4,07					3	4,394
Total Assets		360,983					14	383,652

INSTANT GRAPHS!

Simply double click on any line item (individual account, subtotal, or total).

Get a Pie Chart by double clicking just above the data in a category in a column.

Report properties allow you to modify many aspects of the template. Some properties are specific to an individual report. Others are found in nearly all reports. To access Report Properties, right click on the name of the report, and then select **Properties** from the list that appears. Below is an example of a Report Properties box:

Choose from 5 preset Levels of Detail

Choose Monthly, Quarterly, Annually

Express as a %

Gross-up Tax Exempt Income

Choose Rounding

Print from Budget Tab

Report Properties - Income Statement

Level of Detail:	Summary	Date Range:	This year
Reporting Period:	Monthly	Jan	2007
Calculate Mix:	No		
FTE Adjusted	No		
Include line totals:	Yes		
Include ratios:	Yes		
Page break after income:	Yes		
Year to Date:	No		
Report in Thousands:	No		
Budget:	No		

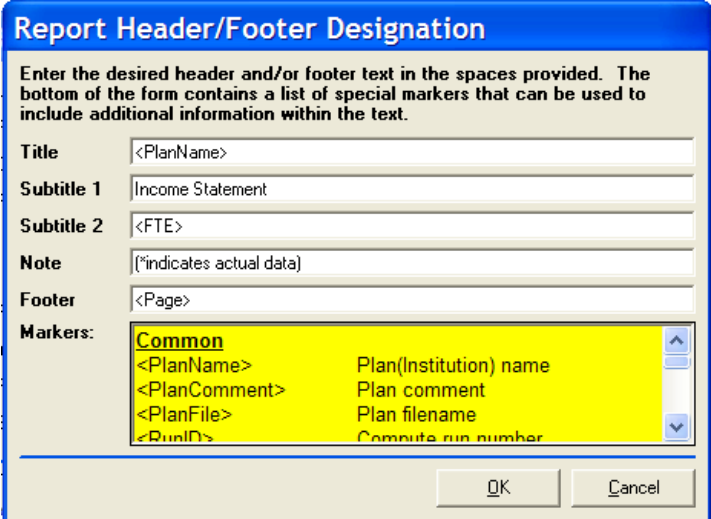
Header Cancel Save As Save Preview

Select Any Preset Date Options or Customize your Own Date Range

HEADERS AND FOOTERS

Headers and Footers can be totally customized by clicking the Header button in the Report Properties box.

Markers allow headers and footers to automatically update with new information. Markers must be typed exactly as listed in the yellow area of the Report Header/Footer Designation box, same case and surrounded by < > characters.



Report Header/Footer Designation

Enter the desired header and/or footer text in the spaces provided. The bottom of the form contains a list of special markers that can be used to include additional information within the text.

Title: <PlanName>

Subtitle 1: Income Statement

Subtitle 2: <FTE>

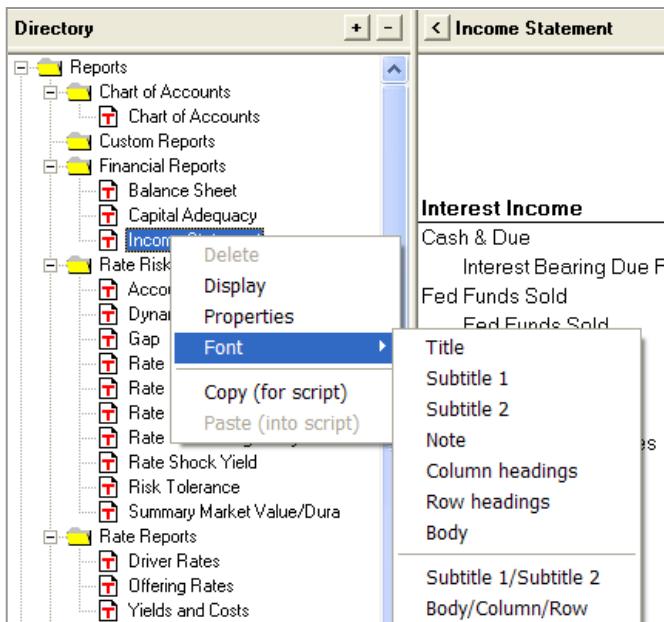
Note: (*indicates actual data)

Footer: <Page>

Markers:

Common	
<PlanName>	Plan(Institution) name
<PlanComment>	Plan comment
<PlanFile>	Plan filename
<RunID>	Compute run number

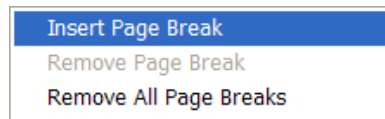
OK Cancel



FONT CHANGES

Font changes can be made for each area of each report. Right click the Report Name and select the area of the report that you wish to resize. Keep in mind that font choices in the body and report headings may impact report spacing.

Any time you change those fonts, you may want to review the report in Print Preview mode, as described later, to make sure that page layout is correct.



Insert Page Break

Remove Page Break

Remove All Page Breaks

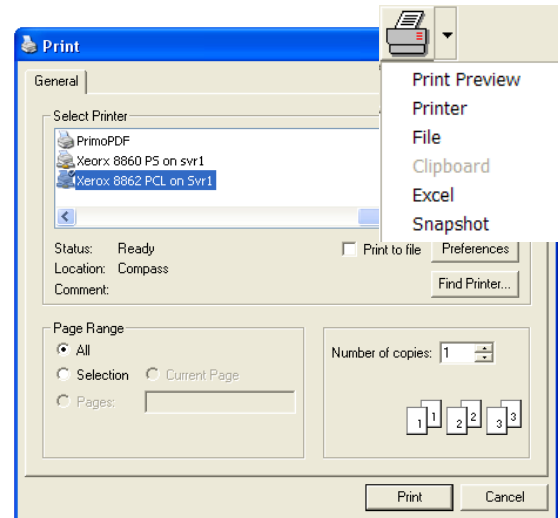
PAGE BREAKS

Modify while the report is visible in the report window by right clicking anywhere in the report. Page breaks cannot be added while in Print Preview mode. You may need to check for default page breaks in Properties.

PRINT OPTIONS

Access printer options by clicking on the Printer Icon or Drop down menu from the Compass tool bar when in any report displayed within the Reports Directory. Please note that these printer options are not available through the Print Preview settings.

- **Print Preview** lets you view and change the layout and orientation of the report.
- **File** allows you to save the report in a file format suitable for import into other applications or web pages.
- **Clipboard** (available for graphs) is a quick way to capture a graph for insertion into a document or spreadsheet.
- **Excel** starts a wizard that quickly exports report data into a spreadsheet of your choice.
- **Snapshot** creates an electronic copy of the report or graph in a separate file that can be recalled by an entry automatically created in the Snapshots area of your report menu. Snapshots may also be used in Scripts.



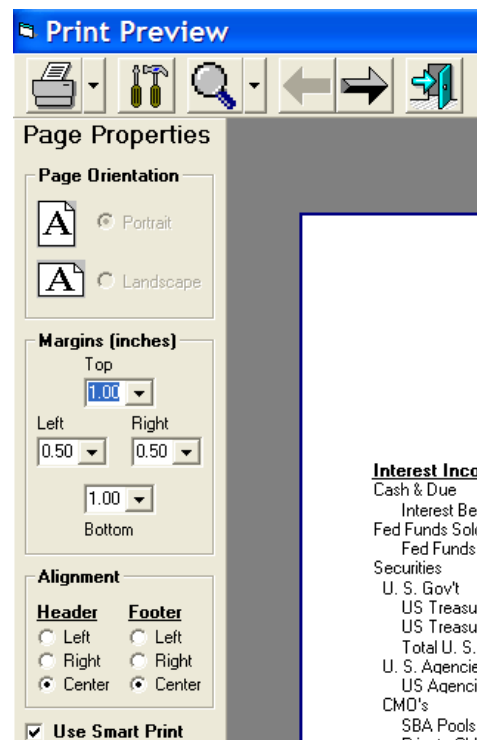
PRINT PREVIEW & SMART PRINT

Print Preview tools allow you to customize the orientation and margins of each report. These settings, like font and page break settings, are maintained in the database for each individual report so that the time invested in set-up is optimized.

Smart Print automates report set-up and spacing. A click on the check box next to **Use Smart Print** will turn the checkmark on or off. Turn it off to customize a layout. This is recommended anytime you change body or line description fonts.

You may wish to experiment with different combinations of font choices and sizes as well as margins to be able to produce single page reports. Some fonts take more horizontal space than others, even at the same point size.

Be careful to select margins that are supported by your printer. Various printers have different minimum requirements for top, bottom, left and right margins. If you plan to use a variety of printers, you may want to be conservative in your minimum margin choices.



SCRIPTS

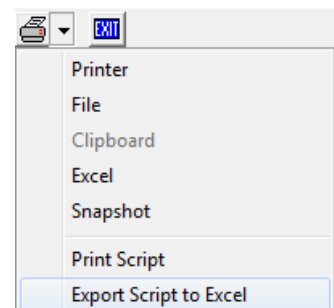
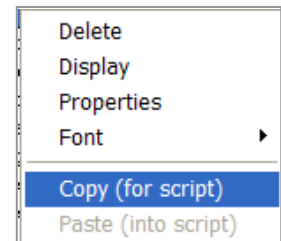
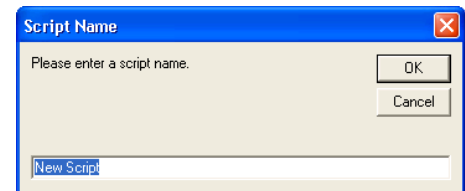
Scripts are used to prepare a “slide” presentation or a group of reports to be printed in a batch. You can even include charts and graphs from the Account Projections area of Compass or “instant” charts from report lines or columns if you take a “Snapshot” of the graph that you want by selecting “Snapshot” from the Print button drop-down.

Reports and Graphs selected directly from the report menu will update themselves each time that you complete your plan. You can save as many scripts as you need. Create impressive presentations. Speed up the monthly process of preparing Board or ALCO reports to within a few seconds. Actual printing may take longer, but you can continue working on the same computer while the printing process continues.

Note: Graphs and reports added to the script from the “Snapshot” area will not update themselves. To update a report or graph, select a new “snapshot”, delete the old “snapshot” from the script and add the new “snapshot” to the script.

Steps to Create a Script

1. Click the **Reports** button.
2. Scroll down to the Reports Directory to the **Scripts** folder.
3. Double click **<Create Script>**.
4. Give the script a name and click the **OK** button. The new script will appear as a subfolder entry.
5. Right click the first report you want in your script from reports, templates or snapshots listed earlier in the Reports menu.
6. Click **Copy (for script)**.
7. Right click the script you want to build.
8. Click **Paste (into script)**. When you add the first report, a small + will appear next to the script folder you are building. You can click the +, then the name of the report will appear.
9. Continue this process for each report or chart that you wish to add.
10. You can delete items from the script by a right click to the item and then click **Delete** from the box that appears.
11. View a script by double clicking its folder. You may then step through reports in the presentation mode.
12. To print all reports, select **Print Script** from the printer drop-down. Clicking the **Printer** button will print the single report currently displayed. You can also Export a Script to Excel.



QUICK CHART

Comparative charting is a great way to communicate ideas, especially as an aid in explaining concepts. Using raw numbers to explain a cause and effect relationship may prove difficult, but with graphs, it's simple.

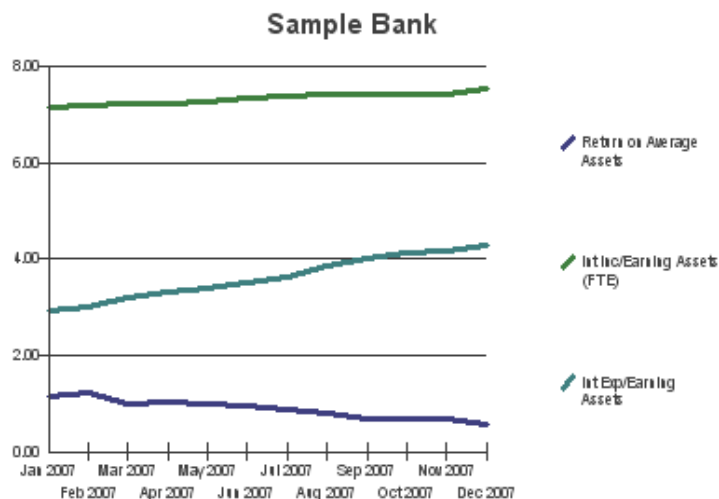
For this example, projected ROA is on a continual decline and the analyst needs to show why. The first step would be to bring up the report that contains the items that should be compared. In this case, the income statement contains the components to be used in the chart.

First, select the items to be charted by Right clicking on the line items. Select **Mark/Unmark row for charting** and the item selected will appear highlighted in yellow. To remove the highlighting, right click and select **Clear Marked Rows**.

Insert Page Break
Remove Page Break
Remove All Page Breaks
Mark/Unmark row for charting
Build the chart
Clear marked rows

Average Equity
Return on Average Assets
Return on Average Equity

Continue right clicking and marking each item you wish to include in the analysis. Once all items have been selected, right click again and select Build the chart. A **Quick Chart** will appear. Quick Charts can be printed by clicking on the right arrow next to the printer button and selecting Printer or they can be exported for use in other applications by selecting either File or Clipboard. If you select File, you have the option of saving the image as a Bitmap, Metafile or JPEG image.



In the example above, it is clear that interest expense is rising much faster than interest income, thus causing the projected decline in ROA and made easier to interpret using the charting capabilities within Compass.

When comparing ratios, the charts will appear as line charts and when comparing dollars amounts or balances, the chart will appear as bar charts.



REPORT DESIGNER

While Compass provides a complete set of reports that are customizable with respect to level of summarization and time period, some users would like to build reports to express other analyses and relationships.

The Report Designer allows you to select account and ratio data from Compass' vast database and place it on a spreadsheet type layout, perform some basic calculations and save it to the report menu. Select the Report Designer button in the icon bar and you will be presented with the design screen.

At the top of the screen, just below the Button Bar, is where you specify the new report name, the data type, time periods, and other important data modifiers.

Report:	<input type="button" value="Delete"/>	Default Data Types:	Time Selection:	Fonts: <input type="button" value="Change"/>
<input type="button" value="Save"/> <input type="button" value="Save As"/>	<input type="button" value="New Report"/>	Accounts: <input type="text" value="EOM Balance"/>	<input type="button" value="This Year"/> <input type="button" value="By Month"/>	<input type="text" value="Body"/>
		Summary Items/Custom Ratios: <input type="text" value="Actual"/>	<input type="checkbox"/> Include Totals/Averages	Arial [9]

Below this section is the design area. The basic elements include the account list on the left side of the page, the design area with description column and time periods on the right. Just above the design area is the header information used to describe the report.

Not only does the account list on the left include all the balance sheet and income statement data for your reports, but you also have access to key pre-calculated ratios when you slide the account bar down. Try it with your own data.

The screenshot displays the 'Compass - [Report Designer]' application window. The interface includes a menu bar with options like File, Update, Rates, Projections, Compute, Reporting, Utilities, and Help. Below the menu is a toolbar with various icons. The main window is divided into several sections:

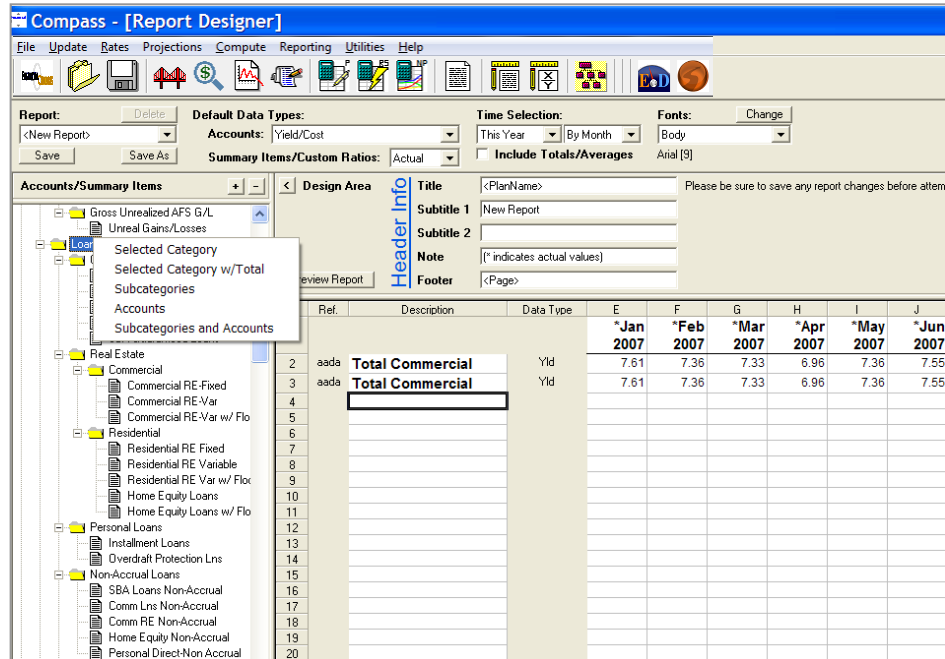
- Accounts/Summary Items:** A tree view on the left side listing various financial categories such as Balance Sheet, Assets, Liabilities, and Equity, with sub-items like Cash & Due, US Treasury Bills, and SBA Loans.
- Design Area:** A central area containing a table for data entry. The table has columns for 'Ref.', 'Description', 'Data Type', and months from Jan 2007 to Nov 2007.
- Header Info:** A section at the top right with fields for Title, Subtitle 1, Subtitle 2, Note, and Footer.

The status bar at the bottom indicates the file path: 'Plan File: C:\Program Files\Compass\Sample Bank\Sample Bank.mdb' and the date/time: '2/21/2008 1:46 PM'.

GETTING DATA INTO THE DESIGN AREA

First, place your cursor on the report description line where you want your data.

Next select the data type from the drop down menu Default Data Type at the top of the screen. Each account has many components such as Average Balance, Interest, Yield, etc. so you must tell the designer which of these elements you want to use for this data line. Once you have specified the data type, select the account you wish to put into the report. If you need to delete a line, right click on the Description column and select Delete Row.



There are options available here as well. In the example below we have selected the Total Loans by clicking on it and then pressing the right mouse button to view the options menu at this point. The options include:

1. Selected Category - places the category name only in the description line.
2. Selected Category w/Total - places the name and the data into the report.
3. Subcategories – places the name of each subcategory below the highlighted category vertically into the report, not the data.
4. Accounts – places all the accounts below the category with their data into the report.
5. Subcategories and Accounts – places all the subcategory folders with individual account data into the report designer.

Each operation is executed as it is selected so the values appear immediately.

Note that the Data Type selected above remains the default for each line until the user changes it. Therefore, if you want to mix data types for your reports, you must change the data type before placing the data into the Report Designer. You will see the applicable data type (AvgBal, TarBal, Yld, etc.) in the column to the right of the account Description. It is only used at design time and will not be printed.

At the top of the Designer you will find, in addition to the data type, other options to make your report more meaningful.

Report:	Delete	Default Data Types:	Time Selection:	Fonts:	Change
<New Report>		Accounts: EOM Balance	This Year By Month	Body	
Save	Save As	Summary Items/Custom Ratios: Actual	<input type="checkbox"/> Include Totals/Averages	Arial [9]	

You should review all of the Data Type options.

PERFORMING CALCULATIONS

The Report Designer provides limited calculation capabilities. To insert a calculation into your report, place the cursor on the row where you would like the calculation to appear and press the right mouse button. A menu will display.

	Ref.	Description	Data Type	E	F	G	H	I	J	K	L
1				*Jan 2007	*Feb 2007	*Mar 2007	*Apr 2007	*May 2007	*Jun 2007	*Jul 2007	*Aug 2007
2	aada	Total Commercial	Yld	7.61	7.36	7.33	6.96	7.36	7.55	7.81	7.62
3	aadb	Total Residential	Yld	10.19	7.46	7.44	7.46	7.42	7.45	7.46	7.46
4	aadc	Total Personal Loans	Yld	6.78	6.98	6.97	6.89	7.15	7.55	7.50	7.37
5											
6											
7											
8											
9											
10											
11											
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25											
26											

Select the Add a Function to view the calculation options.

- Ratio allows you to build basic ratios with row data.
- Custom allows the addition and subtraction of row data.

Let's look at some examples of these functions.

Example 1: Totaling data contained in rows

There are three rows of loan volumes and we wish to insert a total line.

	Ref.	Description	Data Type	E	F	G	H	I	J	K	L
1				*Jan 2007	*Feb 2007	*Mar 2007	*Apr 2007	*May 2007	*Jun 2007	*Jul 2007	*Aug 2007
2	aada	Total Commercial	Yld	7.61	7.36	7.33	6.96	7.36	7.55	7.81	7.62
3	aadb	Total Residential	Yld	10.19	7.46	7.44	7.46	7.42	7.45	7.46	7.46
4	aadc	Total Personal Loans	Yld	6.78	6.98	6.97	6.89	7.15	7.55	7.50	7.37
5											
6											

Select the Custom function for Row 5.

Formula Editor

Please enter the formula description.

Custom

Enter the formula below

R2+R3+R4

Note:
Please use the letter "R" to refer to a generic row location. For example, to add the contents of rows 1 through 10 and then subtract row 15 enter Sum(R1:R10)-R15.

Ok Cancel

Note how the letter R for row is required with each row number to be added. When OK is selected, the calculated values will appear in Row 5.

Along with the standard + and – functions, you may also use the sum function.

	Ref.	Description	Data Type	E	F	G	H	I	J	K	L
1				*Jan 2007	*Feb 2007	*Mar 2007	*Apr 2007	*May 2007	*Jun 2007	*Jul 2007	*Aug 2007
2	aada	Total Commercial	Yld	7.61	7.36	7.33	6.96	7.36	7.55	7.81	7.62
3	aadb	Total Residential	Yld	10.19	7.46	7.44	7.46	7.42	7.45	7.46	7.46
4	aadc	Total Personal Loans	Yld	6.78	6.98	6.97	6.89	7.15	7.55	7.50	7.37
5	-7	Custom		24.58	21.80	21.74	21.31	21.93	22.55	22.77	22.45
6											

We can change the title from Custom to Total Loans in two ways:

1. By placing the cursor over the row and typing.
2. Using the right mouse function to Add/Edit Text function.

Example 2: Creating a Ratio of Commercial Loans to Total Loans.

	Ref.	Description	Data Type	E	F	G	H	I	J	K	L
1				*Jan 2007	*Feb 2007	*Mar 2007	*Apr 2007	*May 2007	*Jun 2007	*Jul 2007	*Aug 2007
2		Commercial									
3	aadba	Total Commercial	TarBal	148,201	152,309	149,561	149,994	146,441	150,830	155,129	150,248
4	aadbb	Total Residential	TarBal	19,920	19,911	20,234	20,728	20,199	19,844	20,252	19,817
5	aadc	Total Personal Loans	TarBal	1,181	1,325	1,116	1,113	547	685	572	565
6	aad	Total Loans	TarBal	236,303	236,723	230,899	233,025	234,785	239,124	241,413	232,450
7											
8											
9											

Select the Ratio function from the right mouse click menu.

Formula Editor

Please enter the ratio description.
Commercial Loans %

Enter the Ratio below

100 × $\frac{\text{Row Number } 3}{\text{Row Number } 6}$

Ok Cancel

In this function, the row number is simply the row number and does not require the R. Also note that the ratio or row name is entered here. Select OK and the calculated value will be placed in the highlighted row.

	Ref.	Description	Data Type	E	F	G	H	I	J	K	L
1				*Jan 2007	*Feb 2007	*Mar 2007	*Apr 2007	*May 2007	*Jun 2007	*Jul 2007	*Aug 2007
2		Commercial									
3	aadba	Total Commercial	TarBal	148,201	152,309	149,561	149,994	146,441	150,830	155,129	150,248
4	aadbb	Total Residential	TarBal	19,920	19,911	20,234	20,728	20,199	19,844	20,252	19,817
5	aadc	Total Personal Loans	TarBal	1,181	1,325	1,116	1,113	547	685	572	565
6	aad	Total Loans	TarBal	236,303	236,723	230,899	233,025	234,785	239,124	241,413	232,450
7											
8	-6	Commercial Loans %		62.72	64.34	64.77	64.37	62.37	63.08	64.26	64.64

ACCESS TO STORED VALUES

In addition to the account data, the Report Designer also provides access to pre-calculated ratios and data created with the Compute the Plan function. You can access these values by scrolling down on the left menu to Summary Items. Within the Summary Items you will see averages, income and expense totals, pre-calculated ratios and custom ratios created using the Ratio Designer.

Report: <New Report> **Default Data Types:** Accounts: EOM Balance **Time Selection:** This Year By Month **Fonts:** Body Arial [9] **Summary Items/Custom Ratios:** Actual ☐ Include Totals/Averages

Accounts/Summary Items

- EOM Earning Assets (000's)
- EOM Non Earning Assets (000's)
- EOM Paying Liabilities (000's)
- Risk Weighted EOM Earning Assets (000's)
- Risk Weighted EOM Non Earning Assets (000's)
- EOM Loan Loss Reserve (000's)
- EOM Capital Notes (000's)
- EOM Demand Deposits (000's)
- EOM Interest Bearing Deposits (000's)
- EOM Loans (000's)
- EOM Time Deposits (000's)
- EOM Current Earnings (000's)
- EOM Dividends (000's)
- EOM Undivided Profits (000's)
- EOM Investment Loss Reserve (000's)
- EOM Tier 1 Capital
- EOM Tier 2 Capital
- EOM Total Deposits
- EOM Other Liabilities
- Ratios**
 - Earning Asset Ratio
 - EOM Risk Based Capital Ratio
 - Equity Capital Ratio
 - Capital/Deposit Ratio
 - Loan/Deposit Ratio
 - Loan/Asset Ratio
 - Loan Loss Reserve Ratio
 - Demand Deposit Ratio
 - Time Deposit Ratio
 - Free Funds Ratio
 - Return on Average Assets Ratio
 - Return on Equity Capital Ratio
 - Break Even Yield
 - Net Overhead
 - Int Inc/Earning Assets(FTE) Ratio
 - Int Exp/Earning Assets Ratio
 - Net Interest Margin(FTE) Ratio
 - Int Exp/Paying Liabilities Ratio
 - Interest Spread(FTE) Ratio
 - Efficiency Ratio(FTE)
 - Capital/Total Deposits Ratio
 - Non-Taxable Asset Ratio
 - Liquidity Ratio**

Design Area

Title: <PlanName> **Subtitle 1:** New Report **Subtitle 2:** **Note:** (* indicates actual values) **Footer:** <Page>

Please be sure to save any report changes before attempting to print the report.

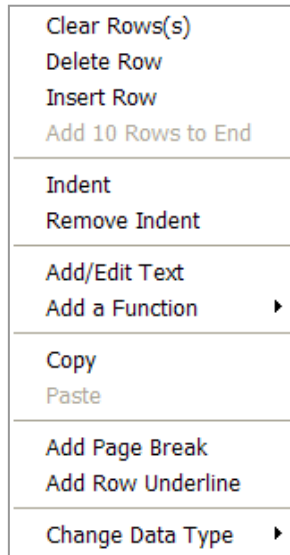
Ref.	Description	Data Type	E *Jan 2007	F *Feb 2007	G *Mar 2007	H *Apr 2007	I *May 2007	J *Jun 2007	K *Jul 2007	L *Aug 2007
1										
2	Commercial									
3	aadba Total Commercial	TarBal	148,201	152,309	149,561	149,994	146,441	150,830	155,129	150,248
4	aadbb Total Residential	TarBal	19,920	19,911	20,234	20,728	20,199	19,844	20,252	19,817
5	aadc Total Personal Loans	TarBal	1,181	1,325	1,116	1,113	547	685	572	565
6	aad Total Loans	TarBal	236,303	236,723	230,899	233,025	234,785	239,124	241,413	232,450
7										
8	-6 Commercial Loans %		62.72	64.34	64.77	64.37	62.37	63.08	64.26	64.64
9										
10	101 Liquidity Ratio	Actual	22.37	24.64	24.63	23.49	23.14	24.13	23.67	25.96
11										
12										
13										
14										
15										
16										
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33										

To place the value into the report, highlight the row location on the report. Then double click the left mouse button on the desired ratio. It will automatically be placed in the report at the selected location.

There is also a Selected Item function in the properties menu (right click) of each Summary Item. Choosing this option has the same effect as double clicking the item.

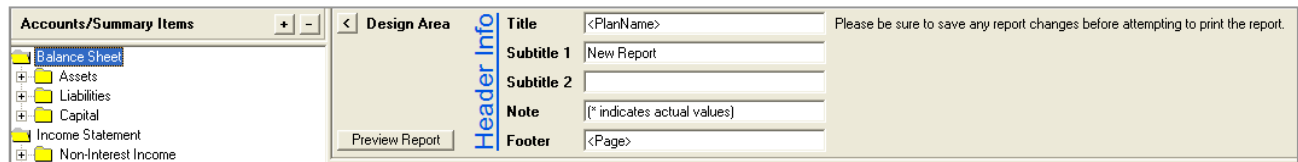
OTHER REPORT DESIGNER OPTIONS

When you right click on any row in the report body, the options list appears that provides many other control features. These are applied to the row selected.



PUTTING TITLES ON YOUR REPORT

Now that your report is designed, you will want to give it a title or header. The opportunity to title your report is available at the top of the designer screen.



This area you will recognize from the standard Compass Report Properties Header features. All the same functions are available here that are available in the standard report Header section.

The Design Area button expands the report to the left for a wider view.

SAVING YOUR REPORT

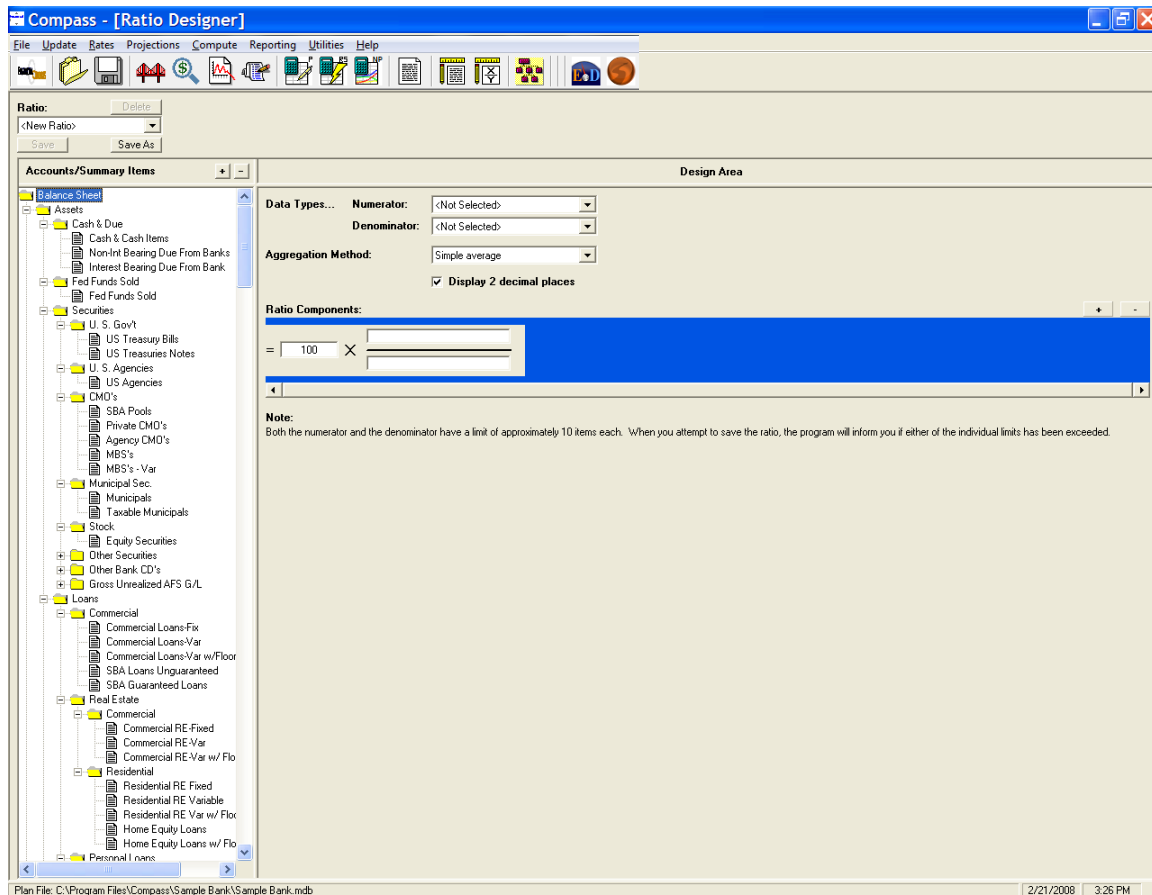


Use the Save As button to save your report the first time and the Save button to save it after that. You will be asked to name the report at this time as well. Your new report will be saved in the Custom Reports section of the Report Menu.



RATIO DESIGNER

For a variety of reasons, it is desirable to show the relationship between two variables in order to more effectively measure progress. The Ratio Designer provides a means for the user to describe relationships not included in Compass. Let's look at the Ratio Designer screen.



To the left is your Chart of Accounts; on the right is the Design Area. At the top of the Design Area there is a list of Data Types for use as the numerator and denominator with the calculation. The center of the screen contains the actual Ratio Components where the ratio will be built. Note the + and – on the far right allows the addition and subtraction of data up to 10 strings.

EXAMPLE OF RATIO BUILDING

For simplicity sake, let's say you wanted to build a Loan / Deposit ratio even though it's already calculated for you in Compass. You first have to bring the Loans category into the numerator position. To move Loans into the numerator, place your mouse cursor over the Loans category and hold down the left mouse button. Drag and drop the Loans to the numerator box.

Ratio:

Accounts/Summary Items

- Balance Sheet
 - Assets
 - Cash & Due
 - Fed Funds Sold
 - Securities
 - Loans**
 - Commercial
 - Commercial Loans - Fixed
 - Commercial Loans - Var. w/cf
 - Commercial Loans - Var. w/flr
 - Commercial Lns - Adj. w/cf
 - Commercial Revolving- Var. w/c
 - Tax Exempt Loans - Fixed
 - Tax Exempt Loans - Var. w/cf

Data Types... **Numerator:** Average Balance **Denominator:** Average Balance

Aggregation Method:

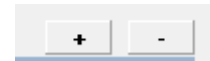
Ratio Components:

= 100 × $\frac{\text{Loans}}{\text{ }}$

Once the Numerator is selected from the Accounts/Summary Items menu, you can choose a Data Type. From the Numerator drop down box select Average Balance.

Note: All numerator values must only be one account data type. It does not allow mixing such as Loan Balance and Loan Yield in the numerator line. This is also true of the denominator. However, the numerator and the denominator can have different data types.

Repeat this process for the denominator. Since we need to use both Demand and Interest Bearing Deposits to equal Total Deposits, first drag Demand Deposits to the denominator line. Next, to add the Interest Bearing Deposits to Demand, simply drag the + sign on the right onto the denominator line.



Then you can drag the Interest Bearing Deposits to add to the denominator. Finally, select the Average Balance data type for the denominator line. If you make a mistake at any point, simply drag and drop the correct item over the incorrect one.

Ratio:

Accounts/Summary Items

- Assets
 - Liabilities
 - Demand Deposits**
 - Demand Deposits
 - Interest Bearing Deposits**
 - Interest Checking Accounts
 - Interest Checking Accounts
 - Money Market Accounts
 - Money Market Accounts
 - Savings
 - Savings Accounts
 - Time Deposits
 - CD's > 250K

Data Types... **Numerator:** Average Balance **Denominator:** Average Balance

Aggregation Method:

Ratio Components:

= 100 × $\frac{\text{Loans}}{\text{Demand Deposits} + \text{Interest Bearing Deposits}}$

The multiplier of 100 is used to express the ratio in a percentage form.

Next, specify the Aggregation Method to be used in the report writer for displaying year-end total or average.

Data Types... Numerator: Average Balance
Denominator: Average Balance
Aggregation Method: Simple average
Last End-Of-Period value
Simple addition
Simple average

Finally, you can select to display your ratio as whole number or Display 2 decimal places by checking the box below Aggregation Method.

Data Types... Numerator: Average Balance
Denominator: Average Balance
Aggregation Method: Simple average
☒ Display 2 decimal places

SAVING YOUR RATIO FOR USE LATER

Once you are satisfied that all the factors are in place, you are ready to save the ratio. Go to the Save As button in the upper left-hand corner of the screen and you will get a box to name your ratio, as well as identifying the author.

Ratio: <New Ratio> [Delete] [Save] [Save As]

Accounts/Summary Items

- Residential
 - Residential RE Fixed
 - Residential RE Variable
 - Residential RE Var w/ Flo
 - Home Equity Loans
 - Home Equity Loans w/ Flo
- Personal Loans
 - Installment Loans
 - Overdraft Protection Lns
- Non-Accrual Loans
 - SBA Loans Non-Accrual
 - Comm Lns Non-Accrual
 - Comm RE Non-Accrual
 - Home Equity Non-Accrual
 - Personal Direct-Non Accrual
- Other Loans
 - Overdrafts
 - Loans In Process
- Loan Loss Reserve
- Fixed Assets
- Investment Loss Reserve
- Goodwill
- OREO
- Other Assets
- Liabilities
- Demand Deposits

Data Types... Numerator: Average Balance
Denominator: Average Balance
Aggregation Method: Simple average
☒ Display 2 decimal places

Ratio Components:

= 100 × $\frac{\text{Loans}}{\text{Demand Deposits} + \text{Interest Bearing Deposits}}$

Note: Both the numerator and the denominator have a

Save Ratio As...

Name: Loan / Deposit
Created By: CDH
On: 02/21/2008
Modified By:
On: NA

[Ok] [Cancel]

Select OK to save your new ratio into Custom Ratios section of the Report Designer. You can now add the new ratio to any custom report using the Report Designer.

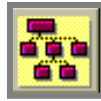
To access ratios that were created earlier, use the drop down box in the upper left-hand corner of the Ratio Designer screen and previously created ratios will appear. Select one and its components will appear in the Design Area ready for any alterations. To Create a New Ratio, select the <New Ratio> option in the same box and it clears the current values from the Ratio Designer.

To view the Loan / Deposit Ratio just designed, go to the Report Designer and slide the scroll bar down to the bottom to the Custom Ratios section where all custom ratios are stored.

Ref.	Description	Data Type	E	F	G	H	I	J	K	L	M	N	O
1			*Jan 2007	*Feb 2007	*Mar 2007	*Apr 2007	*May 2007	*Jun 2007	*Jul 2007	*Aug 2007	*Sep 2007	*Oct 2007	*Nov 2007
2	1 Loan / Deposit	Actual	78.72	77.91	78.52	78.16	80.43	80.42	78.08	77.09	74.96	79.77	80.28
3	67 Loan/Deposit Ratio	Actual	78.72	77.91	78.52	78.16	80.43	80.42	78.08	77.09	74.96	79.77	80.28
4													
5													
6													
7													
8													
9													
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11													
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36													
37													
38													

The Ratios section above contains the Compass pre-calculated ratios generated after each compute. To add a ratio to the Report Designer, just click on the Description line and then double click on the ratio on the left.

In the report above is the comparison of the newly created Loan / Deposit Ratio within the Ratio Designer (top line) to the Compass pre-calculated ratio which you will notice are the same.



CONSOLIDATION

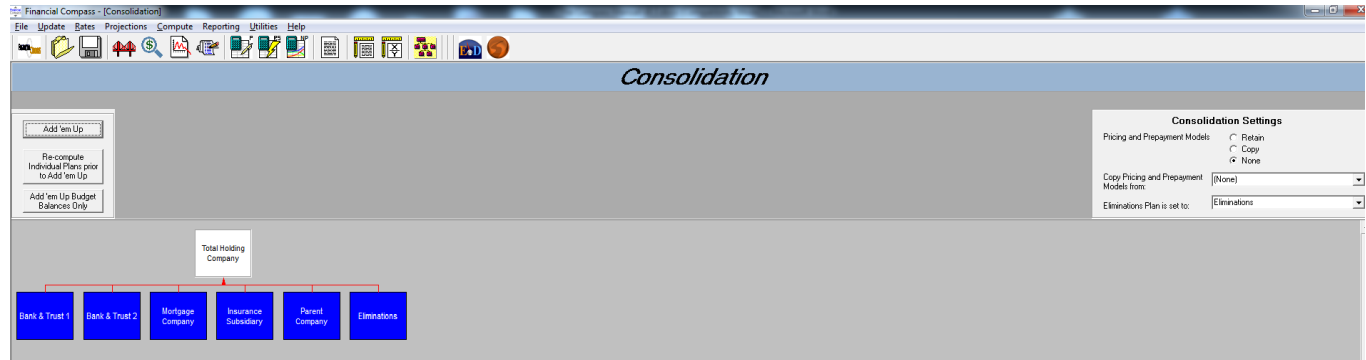
The **Consolidation** module in Compass can be set up to consolidate banks or **Strategic Business Units/SBU** (see **The Strategic Business Unit Planning Model** following in this section). To determine which type of consolidation has been set up, refer to the **Consolidation Settings** (Business Unit Settings for SBU) in the **Consolidation** screen. If you wish to set up your own consolidation (e.g. you'd like to budget for a potential new bank) you will need to set up a plan which will receive the data from the individual plans. Please contact Plansmith Support Services at **1.800.323.3281** for assistance.

NAVIGATING A CONSOLIDATION

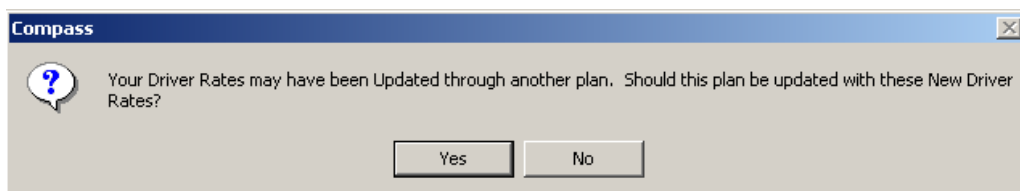
It is highly recommended that you **ALWAYS** access the bank plans through the consolidated screen. Even if you are changing one item in a particular plan, you should access that plan through the consolidation screen. Compass will always assume that your Plan.mdb files reside within the same folder and use the same naming conventions. If you move the plans to a new folder, Compass will retain the link among the subs.

IMPORTANT! However, if you change the name of any of your sub plan files residing in the folder you MUST enter the consolidation screen, right click on each plan box, click on Properties and make sure the name is corrected there for each plan.

To open a bank plan, either double click on the plan box you wish to open *or* right click and select **Open Plan**. After exiting the individual plan, you will return to this screen.

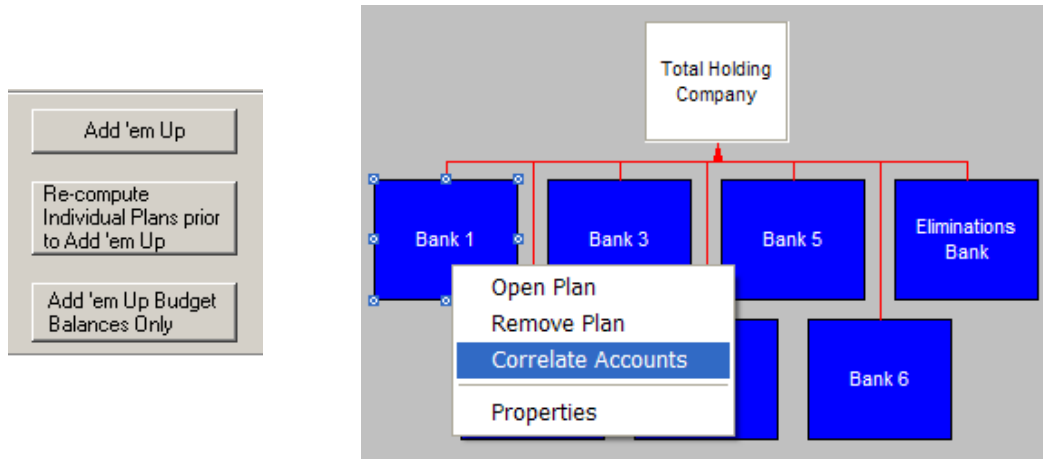


When navigating between plans, you may receive the following prompt:



Remember that each plan refers to the RateWorks.mdb file for its rate forecast. In most cases, there will only be one RateWorks.mdb file shared by multiple plans. Every time you open a new plan, Compass wants to know if you wish to refresh the rate forecast for that plan. We suggest you select **"Yes"** every time you are prompted with this message.

A consolidation is a sum of its parts. The projections will reflect the total of all the banks' projections. In essence, the consolidated plan is just a "shell" that receives account data from its sub plans after performing the **Add'em Up** routine. Each plan on your list is set to send its data to the consolidated plan file. The data for each bank account will go to the appropriate consolidated plan account according to the plan's **Consolidation Correlation Table**. To view this table, simply right click on the plan box and select **Correlate Accounts**.



The accounts are automatically correlated using the account title when plans are added to the consolidation screen, unless there are different spellings used for the same account.

You are Editing the Consolidation Correlation Table			
Consolidated Plan	Link to Bank 1	Bank 1	
Cash	Cash	Cash	<input type="button" value="Add"/> <input type="button" value="Restore"/> <input type="button" value="Save Changes"/> <input type="button" value="Print Table"/> <input type="button" value="Cancel"/>
Due From Banks	Due From Banks	Due From Banks	
Fed Funds Sold	Fed Funds Sold	Fed Funds Sold	
Funds Provided	Funds Provided	Funds Provided	
US Treasuries	US Treasuries	US Treasuries	
US Agencies	US Agencies	US Agencies	
CMO's - MBS	CMO's - MBS	CMO's - MBS	
Municipals	Municipals	Municipals	
Freddie Mac Stock	Freddie Mac Stock	Freddie Mac Stock	
FHLLB Stock	FHLLB Stock	FHLLB Stock	
Security Discount Accretion	Security Discount Accretion	Security Discount Accretion	
Security Premium Amortz	Security Premium Amortz	Security Premium Amortz	
Unreal Gains/Losses	Unreal Gains/Losses	Unreal Gains/Losses	
Commercial Loans-Fixed	Commercial Loans-Fixed	Commercial Loans-Fixed	
Commercial Loans-Var	Commercial Loans-Var	Commercial Loans-Var	
Commercial Loans-Adj	Commercial Loans-Adj	Commercial Loans-Adj	
Commercial-Tax Exempt	Commercial-Tax Exempt	Commercial-Tax Exempt	
Business Manager Loans	Business Manager Loans	Business Manager Loans	
Comm Real Estate - Fixed	Comm Real Estate - Fixed	Comm Real Estate - Fixed	
Comm Real Estate - Var	Comm Real Estate - Var	Comm Real Estate - Var	

For example, if adding a Bank 07 to the list above, you would first **right click** on the Total Bank plan box and then select **Add Plan**. Compass will then prompt you to locate that Plan.mdb file. After browsing for the file, you would double click on it or select the file and then select **Open**. Bank 07's accounts would now be automatically correlated to the Consolidated plan, except for accounts where the spelling didn't match up.

If Bank 07 had an account named Comm1 Fixed Rate Loans, but in the Consolidated Plan it was spelled Commercial Fixed Rate Loans, the account would not automatically correlate due to the spelling difference. You do not have to change the spelling to link an account to the Consolidated Plan and you can link it either before or after the consolidation **Add'em Up** routine is run.

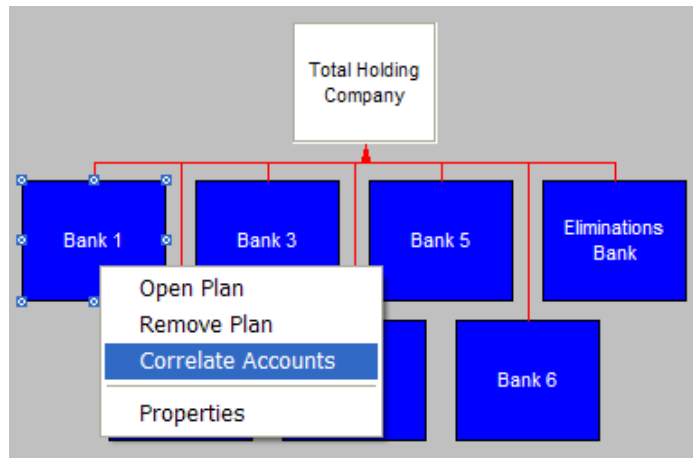
To correlate accounts, locate the appropriate Compass account in the right-hand table that you want to link. Select the account by clicking on the name. Then, while holding the left mouse button down, drag it from the

right hand column to the middle **Link to** column lining it up with the Consolidated Plan's account. Release the mouse button and the account will be properly correlated.

If you did not correlate this account prior to running the **Add-'em Up** routine, you would receive a notice on the Consolidation Error log that the data did not get consolidated and you would need to correlate the account as outlined above.

ADDING NEW ACCOUNTS

Anytime you add a new account to your general ledger, you need to add that account in the consolidated plan, as well as each plan within the Consolidation. You also need to correlate the new account using the plan's **Consolidation Correlation Table**. To update, simply right click on the plan box and select **Correlate Accounts**.



To correlate new accounts, follow the same procedures as previously outlined above. Locate the Compass account in the right-hand table that you want to link. Select the account by clicking on the name. Then, while holding the left mouse button down, drag from the right hand column to the middle **Link to** column lining up with the Consolidated Plan's new account. Release the mouse button and the account will be properly correlated.

You are Editing the Consolidation Correlation Table		
Consolidated Plan	Link to Bank 1	Bank 1
Cash	Cash	Cash
Due From Banks	Due From Banks	Due From Banks
Fed Funds Sold	Fed Funds Sold	Fed Funds Sold
Funds Provided		Funds Provided
US Treasuries	US Treasuries	US Treasuries
US Agencies	US Agencies	US Agencies
CMO's - MBS	CMO's - MBS	CMO's - MBS
Municipals	Municipals	Municipals
Freddie Mac Stock	Freddie Mac Stock	Freddie Mac Stock
FHLB Stock	FHLB Stock	FHLB Stock
Security Discount Accretion	Security Discount Accretion	Security Discount Accretion
Security Premium Amortz	Security Premium Amortz	Security Premium Amortz
Unreal Gains/Losses	Unreal Gains/Losses	Unreal Gains/Losses
Commercial Loans-Fixed	Commercial Loans-Fixed	Commercial Loans-Fixed
Commercial Loans-Var	Commercial Loans-Var	Commercial Loans-Var
Commercial Loans-Adj	Commercial Loans-Adj	Commercial Loans-Adj
Commercial-Tax Exempt	Commercial-Tax Exempt	Commercial-Tax Exempt
Business Manager Loans	Business Manager Loans	Business Manager Loans
Comm Real Estate - Fixed	Comm Real Estate - Fixed	Comm Real Estate - Fixed
Comm Real Estate - Var	Comm Real Estate - Var	Comm Real Estate - Var

Additionally, Compass does not allow for the correlation of multiple accounts in a plan to a single account in the consolidated plan. If you need to aggregate accounts in this manner, please call Plasmith Support Services at **1.800.323.3281**.

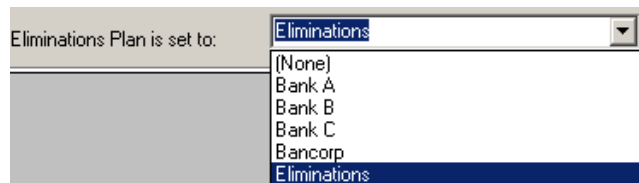
CONSOLIDATION – HOLDING COMPANY

The consolidation of banks and intercompany data can be a complicated matter. Compass streamlines this process by adding up the financial data and allowing for the elimination of capital and any intercompany accounts. This consolidation, by default, will only add up the data present in each individual plan. The resulting Consolidated Holding Company Plan is strictly the sum of its parts and is to be used for reporting only. If you wish to do “What Ifs” and Projections using the Consolidated Plan, please refer to **Forecasting or Projecting on a Consolidated Plan** located further in this section.

Recommended monthly procedures:

Each month, the various bank plans in your consolidation are updated with actual data. You will have verified each bank’s plan for accuracy, and run both the regular **Compute the Plan** and the **Compute a Rate Shock** for each plan. The next step is to make any entries to your Eliminations Plan. These entries usually include offsets to Investments in Subsidiaries, Intercompany Deposits, Capital, etc. To enter actual data for the prior month, use the **Update Financial** screen as you would to update any plan with actual data. For Projections (and Budgeting) enter the eliminating entries through the Projections tab. If eliminating entries are calculated on a spreadsheet, you can cut and paste these numbers directly into the Projections Tab.

The **Consolidation Settings** should also reflect which plan is designated as the **Eliminations Plan**. If one has not been selected, please choose the proper one from the drop down menu.



The following example illustrates the steps necessary to consolidate your bank data:

1. Open the Eliminations plan and enter the elimination of the actual data for the previous month in the **Update Financial** screen. When you have made *all* of your entries, click on **Save Data**.

DOWNLOADED DATA				
	EOM Balance	Average Balance	Income/ Expense	Yield
Liabilities				
Demand Deposits				
Demand Deposits	0	0	0	0.00
Intercompany Deposits	-5,000	-4,000	0	0.00

2. If you are only concerned with the Elimination of actual data, you will need to **Compute the Plan** and **Compute a Rate Shock** and continue with **Step #5**. If you would like to eliminate projections, skip the computes, and continue to **Step #3**.
3. To eliminate projections, manually enter the data *or* cut and paste the data from a spreadsheet. As the data in the Compass projections is in columns, the eliminating entries need to be in columns to use the paste function. To change the orientation in Excel from rows to columns, use the **Paste Special, Transpose** option.



Then, in Compass click (select) the column you wish to paste the data into and **Right Click** for the **Paste** option. (The **Ctrl V** paste option also works here) Eliminating entries can be pasted into *ANY* Compass account including Current Earnings and Undivided Profits.

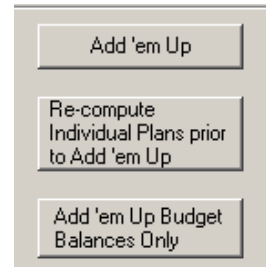
4. **Compute the Plan and Compute a Rate Shock.** Be certain all the plans have the same rate shock levels selected.

5. **Add 'em Up!**

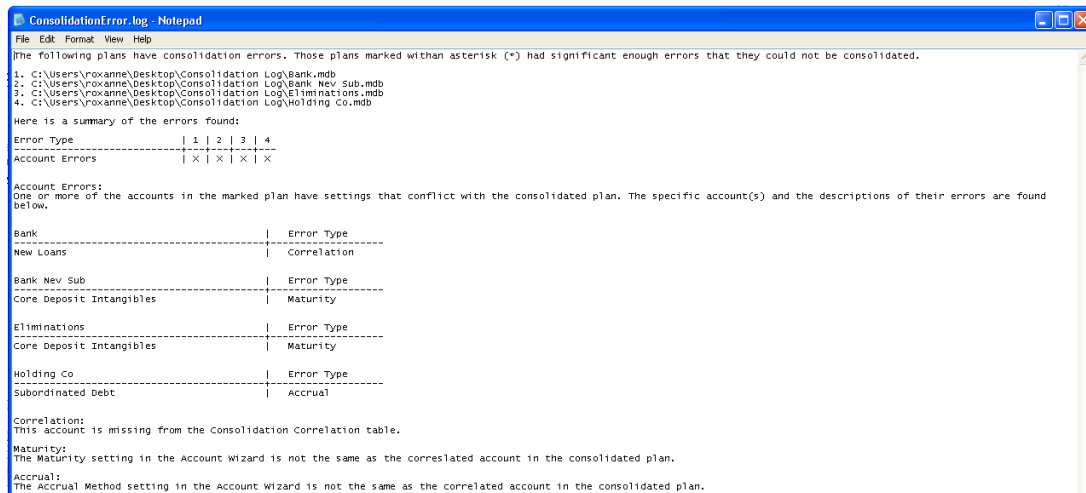
The consolidation of bank data into a consolidated holding company is very straightforward. The data in each of the plans is simply added together. **Click on Add 'em Up** and view your reports.

If you are unsure if the individual plans have been computed, you may want to select **Re-compute Individual Plans prior to Add 'em Up**.

If you are unsure if the Rate Shock computes were run, you can run all Rate Shock computes at once by **Computing a Rate Shock** from the Consolidated Plan.

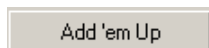


6. **Clear the Consolidation Error Log.** After the **Re-Compute** or **Add 'em Up**, you may receive a consolidation error log on your screen. This log will list all plans containing errors, identify the types of errors that exist per plan, and include the specific account and description of the error, as well as its definition. ***If you do not see a consolidation error log, the consolidation is complete and you can go directly to view reports. Refer to the Reporting section of the manual.***



If you receive a ConsolidationError.log, make the necessary corrections within the plan(s) specified. After correcting the consolidation errors, proceed to **Step #7**.

7. **Add 'em Up!**



Add 'em Up again to incorporate any changes made due to errors.

Your holding company consolidation is complete! You are ready to view reports.

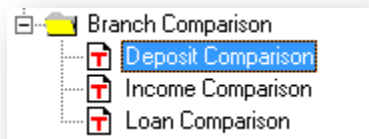
FORECASTING OR PROJECTING ON A CONSOLIDATED PLAN

As a consolidation is a sum of the parts, the projections reflect the sum of all the bank projections. In essence, the Consolidated Plan is just a “shell” that receives account data from its sub plans. No models (pricing, prepayment, etc.) are present in the Consolidated Plan. To perform a “What If” scenario on a Consolidated Plan, one simply enters projections into the appropriate bank. On occasion, however, you may be asked to perform a test or “What If” on the consolidated level only. To do so, you need to have all the modeling present in the Consolidated Plan. This includes pricing and prepayment modeling. **DO NOT** transfer models to the consolidated plan unless you are performing a “What If” on the consolidated plan. If you are unsure, please call Plansmith Support Services at **1.800.323.3281**.

Branch Comparison Reports

Your SBU or Consolidation contains a unique set of reports called Branch Comparison reports. These analyses can assist with breaking down branch contributions to the total bank as well as various business entities within a consolidation.

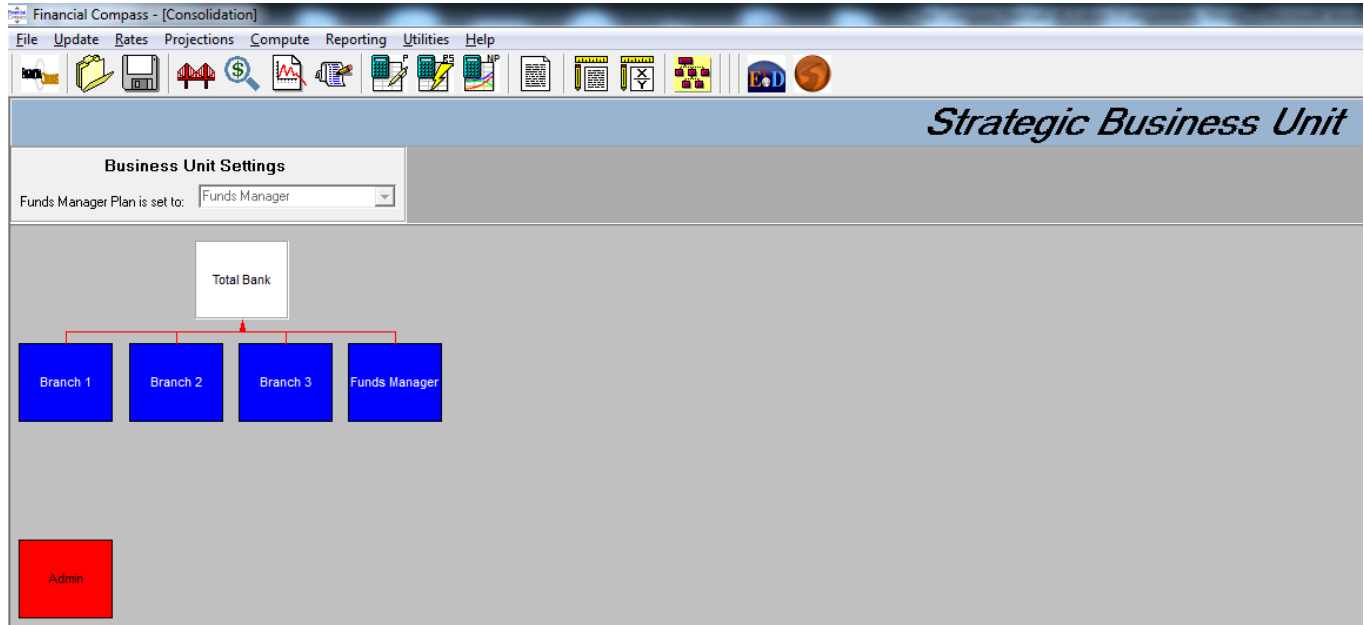
The analyses include a comparison of loan and deposit data as well as an income statement comparison.



Please refer to the end of the SBU section for more information on this feature.

CONSOLIDATION - THE STRATEGIC BUSINESS UNIT PLANNING MODEL

The **Strategic Business Unit (SBU)** was developed to detail branch or department planning in order to achieve accountability and measure profitability. Profitability by branch or department can be measured to give management direction on goal setting.



The Strategic Business Unit module in Compass is set up to consolidate branches or business units. If you are set up as an SBU, the consolidation screen will display as below:

Navigating an SBU Consolidation:

It is recommended that you **ALWAYS** access the branch or department plans through the consolidated plan. Even if you just wish to change one item in a particular plan, you should access the individual plan through the Consolidation screen. Compass will always assume that your Plan.mdb files reside within the same folder and use the same naming conventions. If you move the plans to a new folder, Compass will retain the link among the sub plans. **IMPORTANT! However, if you change the name of any of your sub plan files residing in the folder you MUST enter the consolidation screen, right click on each plan box, click on Properties and make sure the name is corrected there for each plan.**

To open a branch or department plan, either double click on the plan box you wish to open or right click and select **Open Plan**. After exiting the individual plan, you will return to this screen. Notice that one of the boxes appears in **Red**. This means that this plan is designated as a **Cost Center**. The plans in **Blue** are designated **Profit Centers** (plans with balance sheet data).

HOW THE SBU CONSOLIDATION WORKS

To run the SBU consolidation routine, make sure you are in the SBU or Total Bank plan. Select the **Compute the Plan** option and you will see the Compute box below:



It is important to run the **Compute All Departments** for the SBU plans. Compass will then Allocate Capital and Expenses to the sub plans; perform the **Compute the Plan** routine on all branches or departments; combine the branch/department data; calculate the Total Bank's tax liability; and finally, update the **Funds Manager** plan with Fed Funds projections and Cash Balancing projections. We recommend you clear out the Cash Balancing Account's projection after each compute.

SBU CAPITAL ALLOCATIONS

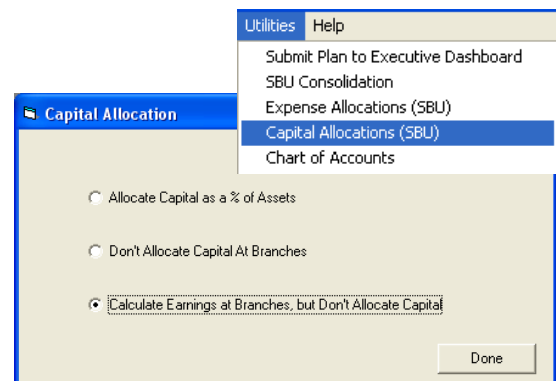
There are three Capital Allocation methods available for choosing at the time your Compass system is developed. The standard option is for Capital to be downloaded each month to the Total Bank only which is referred to as **Don't Allocate Capital At Branches**.

If an allocation method is chosen, each Branch or Department will receive an allotment of capital from the Total Bank during the **Compute All Departments** routine. Capital will be posted to the **Capital Allocation** account in the Undivided Profits folder in each plan receiving an allocation. The allocation is applied to both actual and projected data.

Allocate Capital as a % of Assets is determined by the percentage of EOM assets in the branch/ department (Assets do not include Funds Pool Out). For example, Total Bank EOM capital equals 10MM. Branch 1 has EOM assets totaling 80MM; Branch 2 has 15MM; Admin has 5MM. The total assets for the bank are 100MM. This means that the capital will be allocated as follows: Branch 1 = 8MM or 80% of the 10MM; Branch 2 = 1.5MM or 15% of the total and Admin = .5MM or 5%.

The **Calculate Earnings at Branches, but Don't Allocate Capital** option will allow the posting of Retained and Current Earnings to each department. If you do not wish to have the departments' equity affected by the Funds Pool income/expense, you will need to remove the Offering Rate model on the Funds Pool accounts.

You can view your current setting through the Utilities Menu. Should you wish to amend this option, please contact **Plansmith Support Services at 1.800.323.2281** for assistance.



SBU EXPENSE ALLOCATIONS

SBU	Origin of Expense	Total	SBU #1	SBU #2	SBU #3	SBU #4
1	Branch 1	0.00				
2	Branch 2	0.00				
3	Branch 3	0.00				
4	Funds Manager	0.00				
5	Admin	100.00	25.00	25.00	25.00	25.00

The Strategic Business Unit system has a feature that allows the allocation of **Direct Expenses** between branches or departments. To access the grid at left, Select **Utilities, Direct Expense Allocations** from the Compass drop down menus.

Next, key in the percentage of expense each of the plans will receive from the plan that is the **Origin of Expense**. Please pay attention to the SBU number at left and at the top of the grid. Any plan that originates expense will display as a **RED** box in the consolidation screen.

The example above has the expenses from SBU #5, Admin, allocated to all other plans. The only plan that cannot have an allocation of expense from Admin is Admin. That box is displayed in red and cannot be keyed in for that plan.

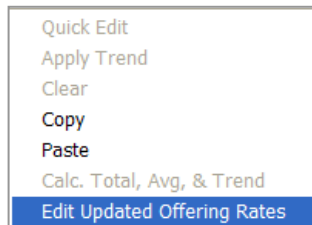
The expenses are then allocated and posted to the **Direct Expense** account present in each plan. The allocation is a percentage of Net Income from the Cost Center. If the center has a Net Profit, the profit is allocated to Direct Expense as a negative number. The only plan that cannot allocate expenses is the **Funds Manager**, as it is the final plan to be balanced in the **Compute All Departments**. If expenses were to be allocated from the Funds Manager, then the **Compute** routine would repeat itself endlessly.

If you do not wish to allocate expense, do not fill in the **Allocations (SBU)** grid.

SBU FUNDS POOLS

As each branch or department is computed, Compass will automatically balance the balance sheet using either the **Funds Pool In** or **Funds Pool Out** account. The use of the Funds Pool account allows the planner to designate a cost of funds usage (Funds Pool In) or credit for providing funds (Funds Pool Out). The rate of exchange or **Funds Transfer Pricing** is defined by the **Offering Rate** model on that particular account. That will determine the yield/cost of those funds. For historical (actual) months, the **Funds Pool Rate** is derived from the offering rate prior to updating.

To change the Funds Transfer for historical (actual) months, open the branch/department and select **Account Projections**. Right Click anywhere within Projections Tab area of the screen and you will see an option for **Edit Updated Offering Rates**.



This form allows you to edit updated Funds Pool Rates for use in calculating updated income/expense for the Funds Pool Accounts.

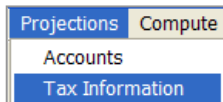
Month	Rate
Jan	0.00
Feb	0.00
Mar	0.00
Apr	0.00
May	0.00
Jun	0.00
Jul	0.00
Aug	0.00
Sep	0.00

Ok Cancel

Select the Edit mode and the Funds Pool Rates box will appear. The rate for each month of the *current year* should be keyed in here. Enter these rates for both of the Funds Pool accounts (if applicable) for each of your branches or departments. The rate will assign an income/expense for the average balances posted to the Funds Pool accounts in the historical periods designated. Remember, the future or projected yields/costs are determined by the Offering Rate for that month.

The Funds Pool Accounts are used for balancing each branch or department only, so the net effect of the income/expense will only be realized when reviewing the branch or department's profitability. At the Total Bank level, the Funds Pool balances are removed so that only the true Fed Funds position is reflected.

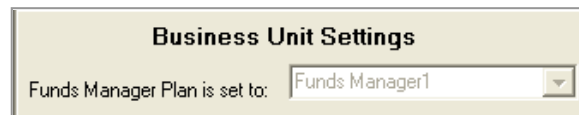
SBU - TAXES



The state and federal tax rates in the Strategic Business Unit system are stored in the Total Bank SBU plan only. To enter the nominal tax rates for each, select Projections, Tax Information from the top menu list in the Total Bank.

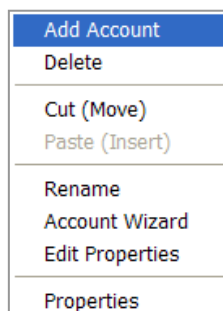
Taxes will be calculated for projected months using these nominal rates. Taxes for actual months will only be downloaded to the Total Bank. Taxes are *not* allocated to the subsidiary branches/departments.

SBU - FUNDS MANAGER



One branch or department in the SBU is designated as the Funds Manager. The Funds Manager plan will receive the actual Fed Funds Sold/Purchased for the bank. It is also the plan that contains the Cash Balancing account used in the Compute process (refer to Compute the Plan section of the manual). The compute process posts balances to a Cash Balancing account to offset changes in Current Earnings for projected months. In the SBU Compute All Departments routine, the Funds Manager plan contains the Cash Balancing account for the bank. When planning/budgeting, please review and revise the Cash account in each branch/department as well as zero out the Cash Balancing account in the Funds Manager.

SBU - ADDING ACCOUNTS



On occasion, it may be necessary to add a new account to your Compass SBU system. In the SBU *ALL* new accounts are added to the Total Bank plan only. Open your Total Bank plan and select Projections, Accounts from the top menu. Scroll to the area in your Chart of Accounts and Right Click on the folder or account where you would like to add the new account. Select **Add Account** from the menu. The **Account Wizard** will appear. Complete all sections of the Account Wizard to set up your new account

After completing the account set up wizard, your mouse cursor becomes an hourglass. When the mouse cursor returns to normal, **Compute the Plan** and the account will be added to all subsidiary plans.

You can also manually key numbers in one or more months using the Dept View Tab or even copy and paste projections from a spreadsheet. Remember that pasted projections must be in columns, not rows and rounded to thousands.

In this example the projection is being changed for Branch 03 using the **Quick Edit** function Ramp to a Value. This projection starts with the January EOM balance of \$7,426,000 and ramps the balance sheet up to \$12,000,000 among all cells highlighted.

Commercial - Fixed - Dept View										
Projections		Budget	Maturity		Variance	Fed Funds		Dept View	Notes	
		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total		
		Quick	Modeled	Manual	Manual	Manual	Modeled	Modeled		
2011	Dec	4,083	380	7,401						
2012	Jan	4,117	389	7,426						
	Feb	4,152	399	7,554						
	Mar	4,186	409	7,682						
	Apr	4,221	419	7,813						
	May	4,256	430	7,945						
	Jun	4,292	440	8,078						
	Jul	4,327	451	8,213						
	Aug	4,364	463	8,350						
	Sep	4,400	474	8,489						
	Oct	4,437	486	8,630						
	Nov	4,474	498	8,772						
	Dec	4,511	511	8,916						
2013	Jan	4,548	523	9,061						
	Feb	4,586	537	9,105						
	Mar	4,625	550	9,254						
	Apr	4,663	564	9,405						
	May	4,702	578	9,558						
	Jun	4,741	592	9,714						
	Jul	4,781	607	9,871						
	Aug	4,820	622	10,030						

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☒ Ramp to a value
☐ Ramp from/to a value
☐ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Ramp to:

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

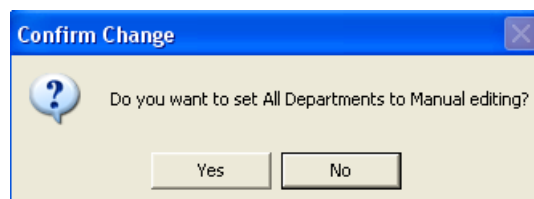
ANY CHANGES MADE USING THE DEPT VIEW TAB WILL BECOME PERMANENT!!!

Changes made with the Dept View Tab are permanently saved to each branch database. The only way to return a plan to its state prior to any adjustments is to retrieve a backup copy of that database. Please, make sure that any changes you make using this feature can be permanent or easily changed back to what you desire.

SBU - CHANGING A PROJECTED BALANCE SHEET FOR MULTIPLE BRANCHES

Perhaps the greatest time savings will be realized in using the Dept View Tab to edit multiple branches at the same time.

1. First, open the **Account Projections** and select the individual account you wish to forecast. All branch modeling buttons must be set to **Manual**. Any branch column set to Quick or Modeled cannot be changed using the Dept View Tab. Also, you will not be able to create **Growth Models** using the Dept View Tab.
2. To remove the models from all branches, click on the **Modeled** button over the Total column. You'll get a prompt to set all Departments to Manual editing.
3. Select **Yes** and you'll see all modeling buttons reset to Manual.



4. Highlight the months that you wish to change. Right mouse click and select **Quick Edit**.
5. Choose the Quick Edit function that you want to use.
6. Click OK.

As your Quick Edit is being spread over a number of branches, it is important to see how the particular edit applies to each branch. Following are samples of each Quick Edit option applied.

Dept View Tab Before Quick Edit Options are Applied:

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2011		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Dec	4,083	380	7,401	8,687	0	0	20,551
2012	Jan	4,117	389	7,426	8,712	0	0	20,645
	Feb	4,152	399	7,554	8,736	0	0	20,840
	Mar	4,186	409	7,682	8,760	0	0	21,038
	Apr	4,221	419	7,813	8,690	0	0	21,143
	May	4,256	430	7,945	8,714	0	0	21,344
	Jun	4,292	440	8,078	8,637	0	0	21,448
	Jul	4,327	451	8,213	8,568	0	0	21,560
	Aug	4,364	463	8,350	8,247	0	0	21,423
	Sep	4,400	474	8,489	8,251	0	0	21,614
	Oct	4,437	486	8,630	8,256	0	0	21,808
	Nov	4,474	498	8,772	8,262	0	0	22,005
	Dec	4,511	511	8,916	8,210	0	0	22,147

CONSTANT: Using this option in the Dept View Tab, each highlighted cell in the Total column will be changed to the value you select. If a branch has data in the months edited, it will receive a proportionate amount of the increase or decrease to reach the new total amount.

Example of Constant After Edit:

In this edit mode, the Total column in 2012 was changed to \$21,000,000. For January 2012, this was an increase from \$20,645,000 to \$21,000,000, a change of \$355,000. The increase for each month will be distributed to each branch proportionate to each branch's percentage of the total *before* the edit. In this case, Branch 01 had a figure of \$4,117,000 in January 2012, which was 19.94% of the total figure of \$20,645,000 to start. As a result, this branch will receive an increase in January 2012 of \$71,000 or 20% of the total increase that month of \$355,000.

Quick Edit

Select a Quick Edit Option:

- ☒ Constant
- ☐ Annual growth rate
- ☐ Ramp to a value
- ☐ Ramp from/to a value
- ☐ Offset
- ☐ Aggregating Offset
- ☐ Distribute (replace existing)
- ☐ Distribute (as offset)

Constant:

Last Calculation Results:

Total: 0

Average: 0.00

Trend: 0.00

Ok Cancel

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2011		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Dec	4,083	380	7,401	8,687	0	0	20,551
2012	Jan	4,188	396	7,554	8,862	0	0	21,000
	Feb	4,183	402	7,611	8,803	0	0	21,000
	Mar	4,179	408	7,669	8,745	0	0	21,000
	Apr	4,193	416	7,760	8,631	0	0	21,000
	May	4,188	423	7,816	8,573	0	0	21,000
	Jun	4,202	431	7,910	8,457	0	0	21,000
	Jul	4,215	440	8,000	8,345	0	0	21,000
	Aug	4,277	454	8,185	8,084	0	0	21,000
	Sep	4,275	461	8,248	8,016	0	0	21,000
	Oct	4,272	468	8,310	7,950	0	0	21,000
	Nov	4,269	476	8,371	7,884	0	0	21,000
	Dec	4,277	484	8,454	7,785	0	0	21,000

ANNUAL GROWTH RATE: Using this option the projection starts with \$20,645,000 and is growing at a rate of 10% per annum. The Total column reflects this increase. Again, the increase each month is proportional with the January 2012 figures remaining the same, as the starting point of \$20,645,000 has not changed.

Example of Annual Growth Rate After Edit:

Quick Edit

Select a Quick Edit Option:

- ☐ Constant
- ☒ Annual growth rate
- ☐ Ramp to a value
- ☐ Ramp from/to a value
- ☐ Offset
- ☐ Aggregating Offset
- ☐ Distribute (replace existing)
- ☐ Distribute (as offset)

Annual Growth Rate:

Last Calculation Results:

Total: 0

Average: 0.00

Trend: 0.00

Ok Cancel

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2011		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Dec	4,083	380	7,401	8,687	0	0	20,551
2012	Jan	4,117	389	7,426	8,712	0	0	20,645
	Feb	4,147	399	7,545	8,726	0	0	20,817
	Mar	4,177	408	7,665	8,741	0	0	20,991
	Apr	4,226	420	7,821	8,699	0	0	21,166
	May	4,256	430	7,944	8,713	0	0	21,342
	Jun	4,306	442	8,105	8,666	0	0	21,520
	Jul	4,355	454	8,266	8,623	0	0	21,699
	Aug	4,457	473	8,528	8,422	0	0	21,880
	Sep	4,491	484	8,665	8,422	0	0	22,062
	Oct	4,526	496	8,803	8,422	0	0	22,246
	Nov	4,560	508	8,942	8,422	0	0	22,431
	Dec	4,607	522	9,105	8,384	0	0	22,618

In the **Annual growth rate** edit mode, the Total balance projection increases 10% from \$20,645,000 to \$22,618,000, or \$471,000. Each month, the increase in total balance has been distributed proportionately between the branches. For example, the December 2012 balance in Branch 01 has changed from \$4,511,000 to \$4,607,000. This is an increase of \$96,000. The original Branch 01 figure of \$4,511,000 was 20.36% of the original December total of \$22,147,000, so the increase for that month is 20.36% of \$471,000 or \$96,000.

RAMP TO A VALUE: This method is used to reach a target balance by a specific date. The Total column in this case has been ramped to a value of \$22,618,000. (The same increase as the annual growth example) The branch columns will receive a proportionate amount of the total increase in each month based upon the balances that were present *before* the edit.

Example of Ramp to a Value After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☒ Ramp to a value
☐ Ramp from/to a value
☐ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Ramp to:

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2011		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Dec	4,083	380	7,401	8,687	0	0	20,551
2012	Jan	4,117	389	7,426	8,712	0	0	20,645
	Feb	4,147	399	7,545	8,726	0	0	20,817
	Mar	4,177	408	7,665	8,741	0	0	20,991
	Apr	4,226	420	7,821	8,699	0	0	21,166
	May	4,256	430	7,944	8,713	0	0	21,342
	Jun	4,306	442	8,105	8,666	0	0	21,520
	Jul	4,355	454	8,266	8,623	0	0	21,699
	Aug	4,457	473	8,528	8,422	0	0	21,880
	Sep	4,491	484	8,665	8,422	0	0	22,062
	Oct	4,526	496	8,803	8,422	0	0	22,246
	Nov	4,560	508	8,942	8,422	0	0	22,431
	Dec	4,607	522	9,105	8,384	0	0	22,618

RAMP FROM/TO A VALUE: This edit works the same as the Annual Growth edit. The monthly increase is portioned according to each Branch's percentage of the total balance *before* the edit. A starting point and ending target are entered and the values in between are interpolated.

Example of Ramp from/to a Value After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☐ Ramp to a value
☒ Ramp from/to a value
☐ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Ramp from:

To:

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2011		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Dec	4,083	380	7,401	8,687	0	0	20,551
2012	Jan	4,188	396	7,554	8,862	0	0	21,000
	Feb	4,256	409	7,743	8,956	0	0	21,364
	Mar	4,323	422	7,934	9,047	0	0	21,727
	Apr	4,410	438	8,163	9,079	0	0	22,091
	May	4,478	452	8,358	9,167	0	0	22,455
	Jun	4,566	469	8,594	9,189	0	0	22,818
	Jul	4,653	485	8,831	9,212	0	0	23,182
	Aug	4,796	509	9,178	9,064	0	0	23,545
	Sep	4,867	525	9,391	9,127	0	0	23,909
	Oct	4,938	541	9,605	9,189	0	0	24,273
	Nov	5,008	558	9,821	9,250	0	0	24,636
	Dec	5,092	577	10,064	9,267	0	0	25,000

The after edit value of \$21,000,000 is \$355,000 greater than the before edit value in January of \$20,645,000. Branch 01 increased by \$71,000 in January, as it was 19.94% of the total January balance of \$20,645,000 and 19.94% of \$355,000 is \$71,000. Additionally, December's value in Branch 01 *before* the edit was \$4,511,000 and now is \$5,092,000, an increase of \$581,000. The increase is a result of the total increase of \$2,853,000, which is \$25,000,000 minus the original December total of \$22,147,000. 19.94% of \$2,853,000 equals the same \$581,000.

OFFSET: The Offset option adds/subtracts a value to/from each cell that is highlighted. This edit is useful when a forecast is in place, but additional volume changes need to be made to that current projection.

Example of Offset After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☐ Ramp to a value
☐ Ramp from/to a value
☒ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Offset:

Ok Cancel

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2011		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Dec	4,083	380	7,401	8,687	0	0	20,551
2012	Jan	4,317	408	7,786	9,134	0	0	21,645
	Feb	4,351	418	7,916	9,155	0	0	21,840
	Mar	4,385	428	8,047	9,177	0	0	22,038
	Apr	4,421	439	8,182	9,101	0	0	22,143
	May	4,456	450	8,317	9,122	0	0	22,344
	Jun	4,492	461	8,455	9,040	0	0	22,448
	Jul	4,528	472	8,594	8,965	0	0	22,560
	Aug	4,567	484	8,740	8,632	0	0	22,423
	Sep	4,603	496	8,882	8,632	0	0	22,614
	Oct	4,640	508	9,025	8,634	0	0	22,808
	Nov	4,677	521	9,170	8,637	0	0	23,005
	Dec	4,714	534	9,318	8,580	0	0	23,147

After editing, each cell in the total column has an additional \$1,000,000. The additional \$1,000,000 each month has been distributed as before with each branch receiving its percentage according to its share of the total volume before the edit. For example Branch 01 had a previous January 2012 balance of \$4,117,000 (19.94% of the previous total of \$20,645,000) and has received 19.94% of the additional \$1,000,000 to bring its new total to \$4,317,000.

AGGREGATING OFFSET: The Aggregating Offset option is similar to the offset edit except that the addition or subtraction increases by the same amount each month of the projection. In this example, the first month has \$1,000,000 added, the second \$2,000,000 and so on.

Example of Aggregating Offset After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☐ Ramp to a value
☐ Ramp from/to a value
☐ Offset
☒ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Aggregating Offset:

Ok Cancel

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2011		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Dec	4,083	380	7,401	8,687	0	0	20,551
2012	Jan	4,317	408	7,786	9,134	0	0	21,645
	Feb	4,550	437	8,278	9,575	0	0	22,840
	Mar	4,783	467	8,778	10,009	0	0	24,038
	Apr	5,020	498	9,291	10,334	0	0	25,143
	May	5,253	530	9,806	10,755	0	0	26,344
	Jun	5,492	564	10,338	11,054	0	0	27,448
	Jul	5,732	598	10,880	11,350	0	0	28,560
	Aug	5,993	635	11,469	11,326	0	0	29,423
	Sep	6,232	672	12,024	11,686	0	0	30,614
	Oct	6,471	709	12,587	12,041	0	0	31,808
	Nov	6,710	747	13,157	12,392	0	0	33,005
	Dec	6,955	787	13,747	12,658	0	0	34,147

The **Aggregating Offset** of \$1,000,000 has added a total of \$1,000,000 to January 2007 and \$2,000,000 to February 2007 and so on. The proportional distribution allotted \$200,000 to Branch 01 in January 2007 (19.94% of \$1,000,000) and \$398,000 to February (19.92% of \$2,000,000) according to the branch percentage of the total column prior to the edit.

DISTRIBUTE (REPLACE EXISTING): This edit will take the total amount entered and divide it equally among the highlighted cells.

Example of Distribute (replace existing) After Edit:

Quick Edit

Select a Quick Edit Option:

- ☐ Constant
- ☐ Annual growth rate
- ☐ Ramp to a value
- ☐ Ramp from/to a value
- ☐ Offset
- ☐ Aggregating Offset
- ☒ Distribute (replace existing)
- ☐ Distribute (as offset)

Distribute: 240000

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2005		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Nov	4,049	370	7,277	8,720	0	0	20,417
	Dec	4,083	380	7,401	8,687	0	0	20,551
2007	Jan	3,989	377	7,194	8,440	0	0	20,000
	Feb	3,984	383	7,249	8,384	0	0	20,000
	Mar	3,980	389	7,303	8,328	0	0	20,000
	Apr	3,993	397	7,390	8,220	0	0	20,000
	May	3,988	403	7,444	8,165	0	0	20,000
	Jun	4,002	411	7,533	8,054	0	0	20,000
	Jul	4,014	419	7,619	7,948	0	0	20,000
	Aug	4,074	432	7,796	7,699	0	0	20,000
	Sep	4,071	439	7,855	7,635	0	0	20,000
	Oct	4,069	446	7,914	7,571	0	0	20,000
	Nov	4,066	453	7,972	7,509	0	0	20,000
	Dec	4,074	461	8,051	7,414	0	0	20,000

The distributed total of \$240,000,000 has been divided by the twelve cells highlighted which portions out a total balance of \$20,000,000 to each cell. The net change between the new total and the old is portioned out to each branch depending on the balance percentage of the total prior to the edit. In January 2007 the net change is - \$645,000, which is distributed to each branch. The percentage of the total balances in Branch 01 prior to the edit was 19.94%, so it received a reduction of \$129,000, which is 19.94% of \$645,000.

DISTRIBUTE (AS OFFSET): This edit divides the value by the number of cells highlighted and portions that amount equally to each cell.

Example of Distribute (as offset) After Edit:

Quick Edit

Select a Quick Edit Option:

- ☐ Constant
- ☐ Annual growth rate
- ☐ Ramp to a value
- ☐ Ramp from/to a value
- ☐ Offset
- ☐ Aggregating Offset
- ☐ Distribute (replace existing)
- ☒ Distribute (as offset)

Distribute: 10000

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

		Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2005		Manual	Manual	Manual	Manual	Manual	Manual	Manual
	Dec	4,083	380	7,401	8,687	0	0	20,551
2007	Jan	4,283	405	7,726	9,064	0	0	21,478
	Feb	4,318	415	7,856	9,085	0	0	21,674
	Mar	4,352	425	7,987	9,107	0	0	21,871
	Apr	4,387	436	8,121	9,032	0	0	21,976
	May	4,422	446	8,255	9,054	0	0	22,178
	Jun	4,458	458	8,392	8,973	0	0	22,281
	Jul	4,495	469	8,531	8,899	0	0	22,394
	Aug	4,533	481	8,675	8,568	0	0	22,257
	Sep	4,570	493	8,816	8,569	0	0	22,447
	Oct	4,606	505	8,959	8,571	0	0	22,641
	Nov	4,643	517	9,104	8,575	0	0	22,839
	Dec	4,681	530	9,251	8,519	0	0	22,980

The amount divided amongst the cells is a total of \$10,000,000. \$10,000,000 divided by 12 equals an increase of \$833,333 to the total balance in each month. Again, the total increase of \$833,333 is portioned according to the original percentage in each branch. For Branch 01, the portion for January 2007 is an increase of \$166,000 as \$166,000 is 19.94% of \$833,333. So, the original amount in Branch 01 for January was \$4,117,000 increased by \$166,000 to equal \$4,283,000.

SBU - CHANGING A PROJECTED INCOME STATEMENT ITEM FOR INDIVIDUAL BRANCHES

1. First, open the **Account Projections** and select the individual account you wish to forecast. Make sure that the branch-modeling button is set to **Manual**. Any branch column set to Modeled cannot be changed using the Dept View Tab. Also, you will not be able to create **Models** using the Dept View Tab.
2. Highlight the months in the column for the branch that you wish to change.
3. Right mouse click and select **Quick Edit**.
4. Choose the Quick Edit function that you want to use (refer to the **Quick Edit** instructions located in the **Account Projections** section of the manual).
5. Click OK – Changes will be made to each branch based on the Quick Edit feature you choose to use.

Projections	Budget	Variance	Dept View	Notes			
	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
	Manual	Manual	Manual	Manual	Manual	Manual	Manual
Jul	13,000	2,309	2,500	2,000	0	0	19,809
Aug	13,000	2,326	2,500	2,000	0	0	19,826
Sep	13,000	2,343	2,500	2,000	0	0	19,843
Oct	13,000	2,360	2,500	2,000	0	0	19,860
Nov	13,000	2,377	2,500	2,000	0	0	19,877
Dec	13,000	2,394					19,894
2007 Jan	13,000	2,411					19,911
Feb	13,000	2,429					19,929
Mar	13,000	2,446					19,946
Apr	13,000	2,463					19,963
May	13,000	2,480					19,980
Jun	13,000	2,497					19,997
Jul	13,000	2,514					20,014
Aug	13,000	2,531					20,031
Sep	13,000	2,549					20,049
Oct	13,000	2,566					20,066
Nov	13,000	2,583					20,083
Dec	13,000	2,600					20,100
2008 Jan	14,681	2,800					22,981

Quick Edit

Select a Quick Edit Option:

☒ Constant

☐ Annual growth rate

☐ Ramp to a value

☐ Ramp from/to a value

☐ Offset

☐ Aggregating Offset

☐ Distribute (replace existing)

☐ Distribute (as offset)

Constant:

In the example above, the 2007 projection is being changed for Branch 02 using the **Quick Edit** function Constant. This change will project a monthly expense for the branch of \$5,000.

If you wish, you can also manually key numbers in one or more months using the Dept View Tab or even copy and paste projections from a spreadsheet. Remember that pasted projections must be in columns, not rows and rounded to the nearest dollar.

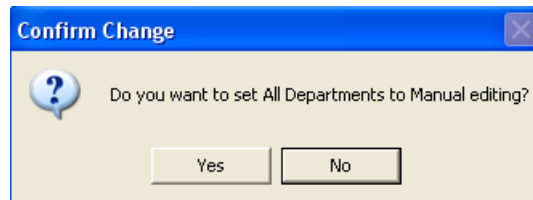
ANY CHANGES MADE USING THE DEPT VIEW TAB WILL BECOME PERMANENT!!!

Changes made with the Dept View Tab are permanently saved to each branch database. The only way to return a plan to its state prior to any adjustments is to retrieve a backup copy of that database. Please, make sure that any changes you make using this feature can be permanent or easily changed back to what you desire.

Perhaps the greatest time savings will be realized in using the Dept View Tab to edit multiple branches at the same time.

SBU - CHANGING A PROJECTED INCOME STATEMENT ITEM FOR MULTIPLE BRANCHES

1. First, open the **Account Projections** and select the individual account you wish to forecast. All branch modeling buttons must be set to **Manual**. Any branch column set to Modeled cannot be changed using the Dept View Tab. Also, you will not be able to create **Growth Models** using the Dept View Tab. To remove the models from all branches, click on the **Modeled** button over the Total column. You'll get a prompt to set all Departments to Manual editing. Select Yes and you'll see all modeling buttons reset to Manual.



2. Highlight the months that you wish to change in the Total column. Right mouse click and select **Quick Edit**.
3. Choose the Quick Edit function that you want to use (refer to the **Quick Edit** instructions located in the **Account Projections** section of the manual).
4. Click OK. As your Quick Edit is being spread over a number of branches, it is important to see how the particular edit applies to each branch.

CONSTANT: Using this option in the Dept View Tab, each highlighted cell in the Total column will be changed to the value you select. If a branch has data in the months edited, it will receive a proportionate amount of the increase or decrease to reach the new total amount.

Example of Constant Before Edit:

Quick Edit

Select a Quick Edit Option:

☒ Constant

☐ Annual growth rate

☐ Ramp to a value

☐ Ramp from/to a value

☐ Offset

☐ Aggregating Offset

☐ Distribute (replace existing)

☐ Distribute (as offset)

Constant:

Last Calculation Results:

Total: 0

Average: 0.00

Trend: 0.00

Ok Cancel

Projections	Budget	Variance	Dept View	Notes				
	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total	
	Manual	Manual	Manual	Manual	Manual	Manual	Manual	
Jul	13,000	2,309	2,500	2,000	0	0	19,809	
Aug	13,000	2,326	2,500	2,000	0	0	19,826	
Sep	13,000	2,343	2,500	2,000	0	0	19,843	
Oct	13,000	2,360	2,500	2,000	0	0	19,860	
Nov	13,000	2,377	2,500	2,000	0	0	19,877	
Dec	13,000	2,394	2,500	2,000	0	0	19,894	
2007 Jan	13,000	2,411	2,500	2,000	0	0	19,911	
Feb	13,000	2,429	2,500	2,000	0	0	19,929	
Mar	13,000	2,446	2,500	2,000	0	0	19,946	
Apr	13,000	2,463	2,500	2,000	0	0	19,963	
May	13,000	2,480	2,500	2,000	0	0	19,980	
Jun	13,000	2,497	2,500	2,000	0	0	19,997	
Jul	13,000	2,514	2,500	2,000	0	0	20,014	
Aug	13,000	2,531	2,500	2,000	0	0	20,031	
Sep	13,000	2,549	2,500	2,000	0	0	20,049	
Oct	13,000	2,566	2,500	2,000	0	0	20,066	
Nov	13,000	2,583	2,500	2,000	0	0	20,083	
Dec	13,000	2,600	2,500	2,000	0	0	20,100	

After Edit:

Projections	Budget	Variance	Dept View	Notes			
		Branch 01	Branch 02	Branch 03	Branch 04	Admin Funds Manager	Total
		Manual	Manual	Manual	Manual	Manual	Manual
Jul		13,000	2,309	2,500	2,000	0	19,809
Aug		13,000	2,326	2,500	2,000	0	19,826
Sep		13,000	2,343	2,500	2,000	0	19,843
Oct		13,000	2,360	2,500	2,000	0	19,860
Nov		13,000	2,377	2,500	2,000	0	19,877
Dec		13,000	2,394	2,500	2,000	0	19,894
2007	Jan	19,587	3,633	3,767	3,013	0	30,000
	Feb	19,569	3,656	3,763	3,011	0	30,000
	Mar	19,553	3,679	3,760	3,008	0	30,000
	Apr	19,536	3,701	3,757	3,006	0	30,000
	May	19,520	3,724	3,754	3,003	0	30,000
	Jun	19,503	3,746	3,751	3,000	0	30,000
	Jul	19,486	3,768	3,747	2,998	0	30,000
	Aug	19,470	3,791	3,744	2,995	0	30,000
	Sep	19,452	3,814	3,741	2,993	0	30,000
	Oct	19,436	3,836	3,738	2,990	0	30,000
	Nov	19,419	3,858	3,735	2,988	0	30,000
	Dec	19,403	3,881	3,731	2,985	0	30,000

In the **Constant** edit, the Total column in 2007 was changed to \$30,000 for each month. The increase for each month will be distributed to each branch proportionate to each branch's percentage of the total *before* the edit. In this case, Branch 01 had a figure of \$13,000 in January 2007, which was 65.29% of the total figure of \$19,911 to start. As a result, this branch will receive an increase in January 2007 of \$6587 or 65.29% of the total increase that month of \$10,089 (\$30,000-\$19,911).

ANNUAL GROWTH RATE: Using this option the projection starts with \$19,911 and is growing at a rate of 5% per annum. The Total column reflects this increase. Again, the increase each month is proportional with the January 2007 figures remaining the same, as the starting point of \$19,911 has not changed.

Example of Annual growth rate After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☒ Annual growth rate
☐ Ramp to a value
☐ Ramp from/to a value
☐ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Annual Growth Rate:

5

Last Calculation Results:

Total:

0

Average:

0.00

Trend:

0.00

Ok

Cancel

		Branch 01	Branch 02	Branch 03	Branch 04	Admin Funds Manager	Total
		Manual	Manual	Manual	Manual	Manual	Manual
Jul		13,000	2,309	2,500	2,000	0	19,809
Aug		13,000	2,326	2,500	2,000	0	19,826
Sep		13,000	2,343	2,500	2,000	0	19,843
Oct		13,000	2,360	2,500	2,000	0	19,860
Nov		13,000	2,377	2,500	2,000	0	19,877
Dec		13,000	2,394	2,500	2,000	0	19,894
2007	Jan	13,000	2,411	2,500	2,000	0	19,911
	Feb	13,042	2,437	2,508	2,007	0	19,994
	Mar	13,086	2,462	2,516	2,013	0	20,077
	Apr	13,129	2,487	2,525	2,020	0	20,161
	May	13,172	2,513	2,533	2,027	0	20,245
	Jun	13,216	2,538	2,542	2,033	0	20,329
	Jul	13,260	2,564	2,550	2,040	0	20,414
	Aug	13,304	2,590	2,558	2,047	0	20,499
	Sep	13,347	2,617	2,567	2,053	0	20,584
	Oct	13,391	2,643	2,575	2,060	0	20,670
	Nov	13,436	2,670	2,584	2,067	0	20,756
	Dec	13,480	2,696	2,592	2,074	0	20,843

In the **Annual growth rate** edit mode, the Total expense projection increases 5% from \$19,911 to \$20,843, or \$932. Each month, the increase in total expense has been distributed proportionately between the branches. For example, the December 2007 Total expense changed from \$20,100 to \$20,843. This is an increase of \$743. The original Branch 01, December 07 figure of \$13,000 was 64.68% of the original December total of \$20,100, so the increase for that month is 64.68% of \$743 or \$480.

RAMP TO A VALUE: This method is used to reach a target expense by a specific date. The Total column in this case has been ramped to a value of \$20,843 (the same increase as the annual growth example). The branch columns will receive a proportionate amount of the total increase in each month based upon the expense numbers present *before* the edit.

Example of Ramp to a value After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☒ Ramp to a value
☐ Ramp from/to a value
☐ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Ramp to: 20843

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
	Manual	Manual	Manual	Manual	Manual	Manual	Manual
Jul	13,000	2,309	2,500	2,000	0	0	19,809
Aug	13,000	2,326	2,500	2,000	0	0	19,826
Sep	13,000	2,343	2,500	2,000	0	0	19,843
Oct	13,000	2,360	2,500	2,000	0	0	19,860
Nov	13,000	2,377	2,500	2,000	0	0	19,877
Dec	13,000	2,394	2,500	2,000	0	0	19,894
2007 Jan	13,000	2,411	2,500	2,000	0	0	19,911
Feb	13,044	2,437	2,508	2,007	0	0	19,996
Mar	13,088	2,462	2,517	2,013	0	0	20,080
Apr	13,132	2,488	2,525	2,020	0	0	20,165
May	13,176	2,514	2,534	2,027	0	0	20,250
Jun	13,219	2,539	2,542	2,034	0	0	20,335
Jul	13,263	2,565	2,551	2,041	0	0	20,419
Aug	13,307	2,591	2,559	2,047	0	0	20,504
Sep	13,350	2,618	2,567	2,054	0	0	20,589
Oct	13,394	2,644	2,576	2,061	0	0	20,674
Nov	13,437	2,670	2,584	2,067	0	0	20,758
Dec	13,481	2,696	2,592	2,074	0	0	20,843

The **Ramp to a value** edit works the same as the Annual Growth edit. The monthly increase is portioned according to each Branch's percentage of the total expense *before* the edit.

RAMP FROM/TO A VALUE: A starting point and ending target are entered and the values in between are interpolated.

Example of Ramp from/to a Value After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☐ Ramp to a value
☒ Ramp from/to a value
☐ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Ramp from: 20000
To: 40000

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
	Manual	Manual	Manual	Manual	Manual	Manual	Manual
Jul	13,000	2,309	2,500	2,000	0	0	19,809
Aug	13,000	2,326	2,500	2,000	0	0	19,826
Sep	13,000	2,343	2,500	2,000	0	0	19,843
Oct	13,000	2,360	2,500	2,000	0	0	19,860
Nov	13,000	2,377	2,500	2,000	0	0	19,877
Dec	13,000	2,394	2,500	2,000	0	0	19,894
2007 Jan	13,058	2,422	2,511	2,009	0	0	20,000
Feb	14,232	2,659	2,737	2,190	0	0	21,818
Mar	15,405	2,899	2,963	2,370	0	0	23,636
Apr	16,576	3,141	3,188	2,550	0	0	25,455
May	17,745	3,385	3,413	2,730	0	0	27,273
Jun	18,912	3,633	3,637	2,910	0	0	29,091
Jul	20,077	3,883	3,861	3,089	0	0	30,909
Aug	21,240	4,135	4,085	3,268	0	0	32,727
Sep	22,400	4,392	4,308	3,446	0	0	34,545
Oct	23,559	4,650	4,531	3,624	0	0	36,364
Nov	24,716	4,911	4,753	3,802	0	0	38,182
Dec	25,871	5,174	4,975	3,980	0	0	40,000

The January 2007 Total after edit value of \$20,000 is \$89 greater than the before edit value in January 2007 of \$19,911. Branch 01 increased by \$58 in January 2007, as it was 65.29% of the total January 2007 expense of \$19,911 (before the edit) and 65.29% of \$89 is \$58. Additionally, December's value in Branch 01 *before* the edit was \$13,000 and now is \$25,871, an increase of \$12,871. This increase in Branch 01 is 64.68% of \$19,900. \$19,900 is the increase from the original Total expense value of \$20,100 in December to \$40,000.

OFFSET: The Offset option adds/subtracts a value to/from each cell that is highlighted. This edit is useful when a forecast is in place, but additional increase/decreases need to be made to that current projection.

Example of Offset After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☐ Ramp to a value
☐ Ramp from/to a value
☒ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Offset:

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
	Manual	Manual	Manual	Manual	Manual	Manual	Manual
Jul	13,000	2,309	2,500	2,000	0	0	19,809
Aug	13,000	2,326	2,500	2,000	0	0	19,826
Sep	13,000	2,343	2,500	2,000	0	0	19,843
Oct	13,000	2,360	2,500	2,000	0	0	19,860
Nov	13,000	2,377	2,500	2,000	0	0	19,877
Dec	13,000	2,394	2,500	2,000	0	0	19,894
2007 Jan	13,653	2,532	2,625	2,100	0	0	20,911
Feb	13,652	2,551	2,625	2,100	0	0	20,929
Mar	13,652	2,569	2,625	2,100	0	0	20,946
Apr	13,651	2,586	2,625	2,100	0	0	20,963
May	13,651	2,604	2,625	2,100	0	0	20,980
Jun	13,650	2,622	2,625	2,100	0	0	20,997
Jul	13,650	2,640	2,625	2,100	0	0	21,014
Aug	13,649	2,657	2,625	2,100	0	0	21,031
Sep	13,648	2,676	2,625	2,100	0	0	21,049
Oct	13,648	2,694	2,625	2,100	0	0	21,066
Nov	13,647	2,712	2,624	2,100	0	0	21,083
Dec	13,647	2,729	2,624	2,100	0	0	21,100

After editing, each cell in the total column has an additional \$1,000. The additional \$1,000 each month has been distributed as before with each branch receiving its percentage according to its share of the total volume before the edit. For example Branch 01 had a previous January 2007 expense of \$13,000 (65.29% of the previous total of \$19,911) and has received 65.29% the additional \$1,000,000 to bring its new total to \$13,653.

AGGREGATING OFFSET: The Aggregating Offset option is similar to the Offset edit except that the addition or subtraction increases by the same amount each month of the projection. In this example, the first month has \$1,000 added, the second \$2,000 and so on.

Example of Aggregating Offset After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☐ Ramp to a value
☐ Ramp from/to a value
☐ Offset
☒ Aggregating Offset
☐ Distribute (replace existing)
☐ Distribute (as offset)

Aggregating Offset:

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
	Manual	Manual	Manual	Manual	Manual	Manual	Manual
Jul	13,000	2,309	2,500	2,000	0	0	19,809
Aug	13,000	2,326	2,500	2,000	0	0	19,826
Sep	13,000	2,343	2,500	2,000	0	0	19,843
Oct	13,000	2,360	2,500	2,000	0	0	19,860
Nov	13,000	2,377	2,500	2,000	0	0	19,877
Dec	13,000	2,394	2,500	2,000	0	0	19,894
2007 Jan	13,653	2,532	2,625	2,100	0	0	20,911
Feb	14,305	2,673	2,751	2,201	0	0	21,929
Mar	14,955	2,814	2,876	2,301	0	0	22,946
Apr	15,605	2,957	3,001	2,401	0	0	23,963
May	16,253	3,101	3,126	2,501	0	0	24,980
Jun	16,901	3,246	3,250	2,600	0	0	25,997
Jul	17,547	3,393	3,374	2,700	0	0	27,014
Aug	18,192	3,542	3,498	2,799	0	0	28,031
Sep	18,836	3,693	3,622	2,898	0	0	29,049
Oct	19,479	3,845	3,746	2,997	0	0	30,066
Nov	20,120	3,998	3,869	3,095	0	0	31,083
Dec	20,761	4,152	3,993	3,194	0	0	32,100

The **Aggregating Offset** of \$1,000 has added a total of \$1,000 to January 2007 and \$2,000 to February 2007 and so on. The proportional distribution allotted \$653 to Branch 01 in January 2007 (65.29% of \$1,000) and \$1,305 to February (65.29% of \$2,000,000) according to the branch percentage of the total column prior to the edit.

DISTRIBUTE (REPLACE EXISTING): This edit will take the total amount entered and divide it equally among the highlighted cells.

Example of Distribute (replace existing) After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☐ Ramp to a value
☐ Ramp from/to a value
☐ Offset
☐ Aggregating Offset
☒ Distribute (replace existing)
☐ Distribute (as offset)

Distribute: 240000

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
	Manual	Manual	Manual	Manual	Manual	Manual	Manual
Sep	13,000	2,343	2,500	2,000	0	0	19,843
Oct	13,000	2,360	2,500	2,000	0	0	19,860
Nov	13,000	2,377	2,500	2,000	0	0	19,877
Dec	13,000	2,394	2,500	2,000	0	0	19,894
2007 Jan	13,058	2,422	2,511	2,009	0	0	20,000
Feb	13,046	2,438	2,509	2,007	0	0	20,000
Mar	13,035	2,453	2,507	2,005	0	0	20,000
Apr	13,024	2,468	2,505	2,004	0	0	20,000
May	13,013	2,482	2,503	2,002	0	0	20,000
Jun	13,002	2,497	2,500	2,000	0	0	20,000
Jul	12,991	2,512	2,498	1,999	0	0	20,000
Aug	12,980	2,527	2,496	1,997	0	0	20,000
Sep	12,968	2,543	2,494	1,995	0	0	20,000
Oct	12,957	2,558	2,492	1,993	0	0	20,000
Nov	12,946	2,572	2,490	1,992	0	0	20,000
Dec	12,935	2,587	2,488	1,990	0	0	20,000

The replacement values are distributed proportionately. For example, the total dollars for 2007 are \$240,000, which divided by the twelve highlighted months, equals a total expense of \$20,000 monthly. In January 2007, the monthly value of \$20,000 is an increase over the previous value of \$19,911 of \$89. Branch 01 receives \$58 of the \$89, as it was 65.29% of the previous total so it receives 65.29% of \$89 or \$58.

DISTRIBUTE AS OFFSET: This edit divides the value by the number of cells highlighted and portions that amount equally to each cell, adding/subtracting the distributed value to/from the existing dollars.

Example of Distribute as Offset After Edit:

Quick Edit

Select a Quick Edit Option:

☐ Constant
☐ Annual growth rate
☐ Ramp to a value
☐ Ramp from/to a value
☐ Offset
☐ Aggregating Offset
☐ Distribute (replace existing)
☒ Distribute (as offset)

Distribute: 12000

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
	Manual	Manual	Manual	Manual	Manual	Manual	Manual
Sep	13,000	2,343	2,500	2,000	0	0	19,843
Oct	13,000	2,360	2,500	2,000	0	0	19,860
Nov	13,000	2,377	2,500	2,000	0	0	19,877
Dec	13,000	2,394	2,500	2,000	0	0	19,894
2007 Jan	13,653	2,532	2,626	2,100	0	0	20,911
Feb	13,652	2,551	2,625	2,100	0	0	20,929
Mar	13,652	2,569	2,625	2,100	0	0	20,946
Apr	13,651	2,586	2,625	2,100	0	0	20,963
May	13,651	2,604	2,625	2,100	0	0	20,980
Jun	13,650	2,622	2,625	2,100	0	0	20,997
Jul	13,650	2,640	2,625	2,100	0	0	21,014
Aug	13,649	2,657	2,625	2,100	0	0	21,031
Sep	13,648	2,676	2,625	2,100	0	0	21,049
Oct	13,648	2,694	2,625	2,100	0	0	21,066
Nov	13,647	2,712	2,624	2,100	0	0	21,083
Dec	13,647	2,729	2,624	2,100	0	0	21,100

This example shows an additional amount of \$12,000 being added to the Total column for 2007. The Offset to each monthly total will be \$1,000, which is distributed proportionately to each branch. Branch 01 in January 2007 received \$653 of the additional \$1,000 as it had 65.29% (\$13,000) of the previous total of \$19,911.

What if I have no projections in my branches and wish to use the Dept View Tab?

If you are projecting in the balance sheet, the total volume added to each cell will be divided equally among ALL branches. For example, if you wish to have a total of \$600,000 at the end of each month in Overdrafts, you would choose the constant Quick Edit with a value of \$600.

Quick Edit

Select a Quick Edit Option:

- ☒ Constant
- ☐ Annual growth rate
- ☐ Ramp to a value
- ☐ Ramp from/to a value
- ☐ Offset
- ☐ Aggregating Offset
- ☐ Distribute (replace existing)
- ☐ Distribute (as offset)

Constant:

Last Calculation Results:

Total: 0
Average: 0.00
Trend: 0.00

Ok Cancel

	Branch 01	Branch 02	Branch 03	Branch 04	Admin	Funds Manager	Total
2005	Manual	Manual	Manual	Manual	Manual	Manual	Manual
Nov	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0
2007 Jan	100	100	100	100	100	100	600
Feb	100	100	100	100	100	100	600
Mar	100	100	100	100	100	100	600
Apr	100	100	100	100	100	100	600
May	100	100	100	100	100	100	600
Jun	100	100	100	100	100	100	600
Jul	100	100	100	100	100	100	600
Aug	100	100	100	100	100	100	600
Sep	100	100	100	100	100	100	600
Oct	100	100	100	100	100	100	600
Nov	100	100	100	100	100	100	600
Dec	100	100	100	100	100	100	600

Example of Constant After Edit:

If no balances were present in each branch, the \$600,000 is portioned out evenly. In the example above, the bank has six branches, so each receives \$100,000 in each month. Please, be careful using this edit with no balances as branches like Admin and Funds Manager may get projections, but should not have any.

The same distribution method is in effect for the non-interest income/expense area if adding totals without projections present.

SBU - BRANCH/DEPARTMENT MAINTENANCE

All models are maintained on an individual plan basis. Simply open the plan and change the model you want changed. This allows for complete customization of the planning for branches or departments. For example, Branch 1 in Anytown may have its deposit products priced differently than Branch 2 that just opened up in Newtown, which is 20 miles away. The Compass system easily handles those differences. If you generally have **uniform pricing** throughout your organization, please contact Plansmith Support Services at **1.800.323.3281**, as the pricing of your products can be centrally located in your RateWorks database.

Unique Reports

Certain reports in the **SBU Total Bank** can be generated for all departments at the same time. For example, if you wish to generate balance sheet reports for all branches or departments, change the **Print All Departments** switch to "Yes."

Important!!! This report must then be saved as part of a report **Script** (refer to **Scripts** in the **Reporting** section of the manual).

Report Properties - Balance Sheet

Level of Detail: Summary Date Range: This year

Data Type: EDM Balance Jan 2006 to Dec 2006

Reporting Period: Monthly

Calculate Mix: No

Page break after assets: No

Budget: No

Exclude Swaps: No

Print All Departments: No

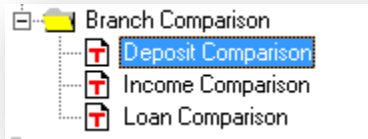
Header Cancel Save As Save Preview

- Analysis Reports
 - Account Analysis
 - Compute Audit
 - Departmental Analysis
 - Funding and Profitability Analysis
 - Liquidity Analysis
 - Monthly Action Plan

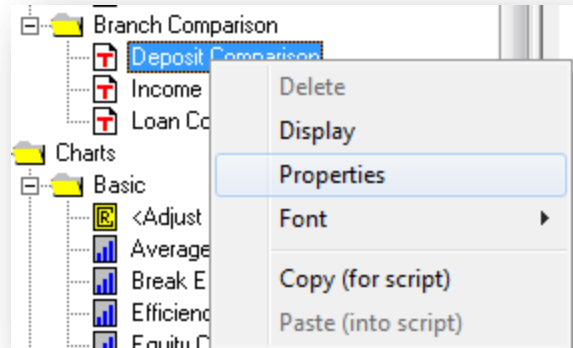
A **Departmental Analysis** report also exists in the **Reporting** area so you can generate account level information by branch. The **Departmental Analysis** can be generated for Balance Sheet and Income Statement accounts; just right click and change the **Properties**.

Branch Comparison Reports

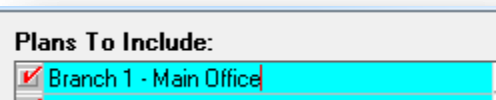
Your SBU or Consolidation contains a unique set of reports called Branch Comparison reports. These analyses can assist with breaking down branch contributions to the total bank as well as various business entities within a consolidation. The analyses include a comparison of loan and deposit data as well as an income statement comparison.



As with the other Compass reports, simply right-click to open the report Properties in order to change the data sets and time frames being compared.



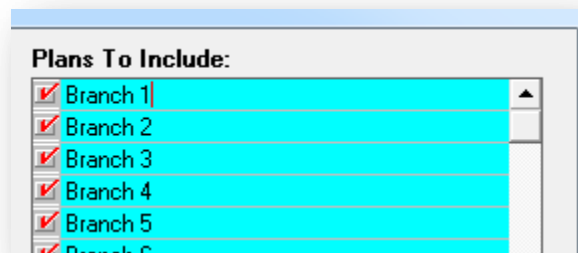
The Plans To Include list contains the units being compared. To remove a unit from the comparison, simply uncheck its box at left.



If your branch names are longer, you may want to consider abbreviating them on the report. In order to change the branch name, double click in the blue area on the name and a cursor will appear to the right of the name.

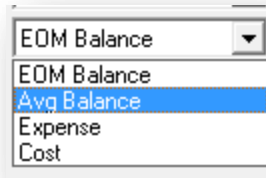
Backspace over the name to remove the undesired text and Save your changes.

You may also need to visit the Print Preview to see if the new names fit on the page as desired.



If you would like to change the order of the units in the report, left click on the plan name and hold the mouse button down. Drag the branch to the desired spot on your list when you see your cursor change to the highlighted **ITEM** enabling the drag and drop.

The Deposit and Loan Comparison reports can be set to compare balance sheet, income or expense as well as yields and costs.



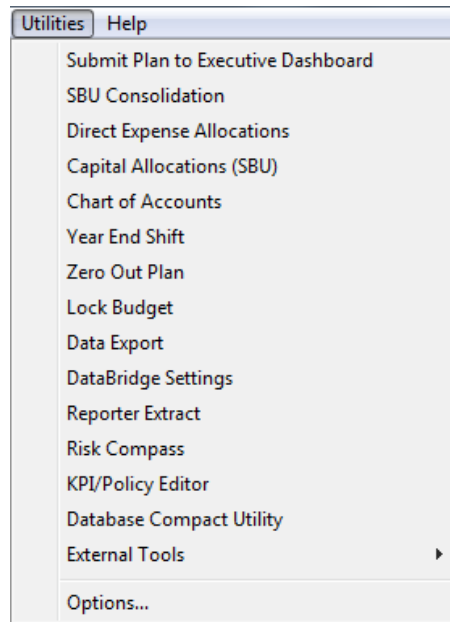
These reports can be used to compare one time period to another or to compare Actual vs. Budget. The Deposit and Loan Comparison reports are set to an Intermediate Level 2 detail. If greater detail is needed, please go to the unit in question to investigate further.

Please note that income and yields for Tax Exempt Loans will not be compared on a TE basis as there are no tax rates at the branch level.

The Income Comparison report will not reflect the income or expense associated with Funds Pools so the Net Income figure may not exactly match Net Income from the branch income statement.

UTILITIES

The Utilities Menu contains options that you may not access very often, but should review when initially setting up your plan.



SUBMIT PLAN TO EXECUTIVE DASHBOARD

The **Executive Dashboard** is the reporting capability that creates Internet-based, point and click analysis at a glance, distilled from the vast quantities of information in your Compass.

If you have elected this feature, you will need an Internet connection.

Click on the **Submit Plan to Executive Dashboard** option or the **Executive Dashboard** icon and you will be given a message that "You are about to send a zipped copy of your Plan and RateWorks files to the Plansmith Website for use in the Executive Dashboard. Before this is carried out, all unsaved changes will be saved. Is it OK to transmit your files?" Select OK if you wish to have any changes saved and your plan submitted to the site. When the plan has been sent, you will receive a "Transfer Complete" message. Select **OK**.



You are ready to go out to the Executive Dashboard website and analyze your plan. The site is:

<http://www.plansmith.com/dashboard2/>

An email will be sent that will include your Username and Password so you can log in to the Executive Dashboard website. Please also refer to the **KPI/Policy Editor** section located further in the **Utilities** section of the manual.

SBU CONSOLIDATION

This selection will take you to the Consolidation screen or click directly on the Consolidation icon. Please refer to the **Consolidation** and **Strategic Business Unit** sections of the manual for details on these plan setups.



DIRECT EXPENSE ALLOCATIONS

(See The Strategic Business Unit Planning Model for detailed information)

CAPITAL ALLOCATIONS (SBU)

(See The Strategic Business Unit Planning Model for detailed information)

CHART OF ACCOUNTS

Make changes to the Chart of Accounts list using the same options available in the Account Projections screen such as Add Account, Cut (Move) accounts and the Account Wizard by right clicking on the account.

YEAR END SHIFT

Once a year, it is necessary to accommodate projected data for a new 12-month period by moving the prior year's actual data and storing it as history. This process is referred to as *shifting* the database.

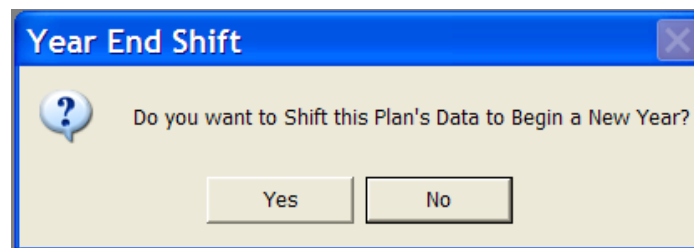


Update for: Apr 2014 Save Data

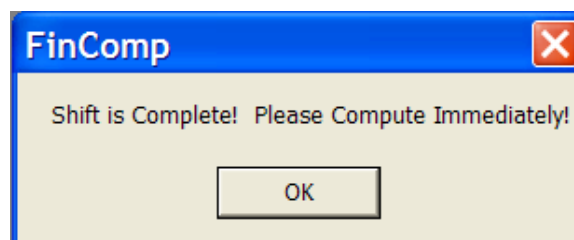
You have the ability to enter up to five years of actual and projected data in your database. Each month, as you update your plan, another month of actual data is posted. This reduces the amount of projected data by one month until the plan is shifted. For example, a plan that is updated with actual data through December has 12 months of actual data and 48 months of projected data. In order to begin entering actual data for the following year, the **Year End Shift** function must be performed to create 12 additional months of projected data. You will not be able to update January of the next year without performing this function.

Always back up your Plan.mdb and RateWorks.mdb files prior to shifting your database.

To shift the database and create the New Year, select **Utilities, Year End Shift**. Consolidation and Strategic Business Unit (SBU) Systems clients will perform the Year End Shift at the Total Bank Plan or Consolidated Plan only. This will shift all affiliated plans as listed in the consolidation layout. The Compass system will walk you through the process.



After selecting **"Yes"** to shift the database, you will be prompted to **Compute the Plan**. Always select **"OK"** and Compute the Plan. You will now be able to update January of the current year.



Post Shifting

You are now ready to update January and re-project data through the new year you have created. If you have models, they will automatically account for the new year and re-project for you. Additionally, another year has been added to your Rate Forecast. You must enter rates or download the January rate file **after** shifting your plan.

The actual data for the prior year has been moved to the history area of the database where it can be accessed by selecting **Utilities, Edit History**. This data can also be viewed in the **Account Projections** by scrolling up on your screen when viewing an account.

Budget Data after Shifting

Budget data for prior years is **NOT** stored in your database, but you will have a copy of the prior year's budget in the archive copy of your Plan.mdb file and Rateworks.mdb that you made prior to shifting the plan.

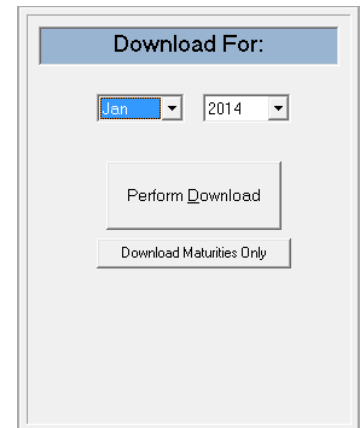
If you have already locked your budget, it will not be affected by the shift to the new year. If you are still creating your budget for the new year, the data will remain in the **Account Projections** until you perform the **Lock Budget** function.

Reversing the Year End Shift

There are two ways to undo a Year End Shift. The first is to exit the Compass program and select **"No"** to saving plan changes. This will return your database to its state prior to shifting. The second is to retrieve your backup copy of the plan. If you have shifted your plan by accident and saved your changes without making a backup, please contact Plansmith Support Services at **1.800.323.3281**.

Downloading Scheduled Maturities after Shifting the Plan

There is an option in the DataBridge screen to download scheduled maturity data only. Make sure the December maturity file is in your data directory and press the **Download Maturities Only** button.

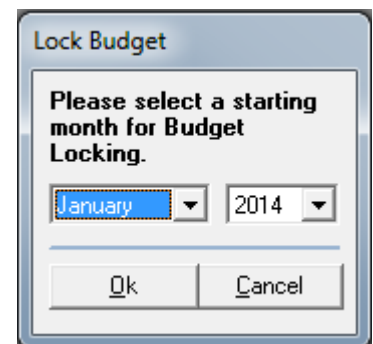


ZERO OUT PLAN

This option will remove **ALL** data and models from your database file. It is useful when creating a plan (e.g. for a new branch) using the **File, Save As** option.

LOCK BUDGET

Developing a budget plan in Compass is accomplished by inputting actual balance and income/expense data, then re-forecasting from the latest monthly update. After receiving approval on the final projections, the next step is to transfer the projections into the Budget Tab or **lock** your budget. **ALWAYS** make sure you are locking computed numbers as budget!



When you lock your budget, you are moving the data from **Account Projections** to the **Budget** area of the database, where it will be stored. For example, it is December 2008 and you have created your budget for 2009. You will select the starting point of January 2009 to move Projections to the Budget area of the database.

To move the budget data, select **Utilities, Lock Budget** from the drop down menu at the top of the screen. Select the month and year for which you are budgeting, in this case January 2009.

Verification

Once you have moved these numbers to the budget, the data for January 2009 and beyond will be identical in both the Projections and Budget Tab at that point in time. This can be seen by viewing the **Variance Tab** in any account after locking the budget. You will also see this by printing reports, such as the Variance reports, for next year. Once you start updating your plan with actual data, your projected data will change and will no longer mirror the budget. *The budget data will not change, as it is stored in a separate area of the database.*

Projections		Budget	Maturity	Variance	Fed Funds	
		EOM Balance	Budget EOM Balance	EOM Variance (\$,000s)	Interest	Budget Interest
2008				View %		
	Nov	38,630	24,738	13,892	220,400	155,615
	Dec	38,866	24,974	13,892	245,241	163,147
2009	Jan	39,074	39,074	0	248,369	248,369
	Feb	39,284	39,284	0	226,416	226,416
	Mar	39,496	39,496	0	253,005	253,005
	Apr	39,709	39,709	0	247,109	247,109
	May	39,924	39,924	0	257,724	257,724
	Jun	40,141	40,141	0	251,680	251,680
	Jul	40,360	40,360	0	262,162	262,162
	Aug	40,580	40,580	0	264,262	264,262
	Sep	40,803	40,803	0	257,837	257,837
	Oct	41,027	41,027	0	268,499	268,499
	Nov	41,253	41,253	0	261,589	261,589
	Dec	41,481	41,481	0	272,139	272,139

Making Changes

Once locked to budget, the data is no longer computed. If you need to make adjustments, change the Projections and re-lock the budget. If you have already updated your plan for January and you choose January as the starting point to lock your budget, then your January actual data will become the January budget data. This is important if you choose to make changes to the budget after your original budget has been locked. For example, if you have updated for the month of March and need to make changes to your budget for April and beyond, change the data in Projections and Lock Budget starting in April. This procedure will not affect the numbers you have in budget for the previous months (January through March) as they were moved from Projections to Budget the first time you locked them.

Always make a back up of your plan immediately after locking the budget.

DATA EXPORT

The Data Export function creates text files containing the data of your choice. **Step 1** determines the type of data from the Current Year, Budget or History. In **Step 2** you will designate *One* value. If you wish to see two types of data and bring that data into a spreadsheet, you will need to do two separate exports. Click on **Step 3** to Create the file. Note the file name and location above. A data.txt file has been created in the designated directory. Select **OK** when you see **Export Complete**.

DATABRIDGE SETTINGS

(Please see the DataBridge section for additional information)

RISK COMPASS

The **Risk Compass** interest rate risk analysis for those who subscribe to this module can be created by selecting this option in the Utilities Menu.

KPI/POLICY EDITOR

KPIs or **Key Performance Indicators** are selected line items or ratios used to track the performance and policies of your institution for those that subscribe to the the **Executive Dashboard** module. Creating your own set of KPIs and Policies is as easy as dragging and dropping.

The **Accounts/Summary Items** column (left hand side) contains your balance sheet and prebuilt totals and ratios for use in setting up the Indicators.

KPI Categories are measurements against target values that are individual goals or benchmarks. In order to create your KPIs, just select the item from the **Accounts/ Summary Items** on the left, hold down the left mouse button, drag the item to the KPI folder, and release the mouse. Next, enter the **“On Target” Value**. Now, click on the **“Over Target is Good”** box if this applies. For example, if you drag the Efficiency Ratio from your KPI list to the Operating Efficiency folder, you would enter your benchmark (say 70) and leave the **“Over Target”** box *unchecked*, as it is better to be under that value. Select **Save** to save your changes.

If you wish to use ratios that do not appear on the **Summary Items** list, use the **Ratio Designer** (refer to this section of the manual) and they will be saved at the bottom in the **Custom Ratios** folder. Simply drag and drop them to the corresponding folder.

Policy Categories should be set up with the **exact** limits you have set for Liquidity, Capital Adequacy, etc.

If your policy dictates a range, then select **Range Limits** and enter the appropriate limits. The example at the right shows a Liquidity Ratio that must be between 25% and 35% of Total Liabilities.

The screenshot shows a software window titled "Policy Designer". On the left, under "Policy Categories", there is a list of categories: Profitability, Asset Management, Liability Management, Operating Efficiency, Liquidity, Liquidity Ratio (highlighted), Loan Quality, Capital Adequacy, and Growth. To the right of this list are "Delete", "Up", and "Down" buttons. On the far right, the "Liquidity Ratio" configuration panel is visible. It includes a "Data Type" dropdown set to "Automatic", radio buttons for "Single Limit" and "Range Limits" (with "Range Limits" selected), and a checkbox for "Over is Good" which is checked. Below these, there are three colored boxes: "Over" (red), "In Range" (green), and "Under" (red). To the right of these boxes, under the heading "Limits:", are two input fields: the top one contains "35.00" and the bottom one contains "25.00". A "Save" button is located at the bottom right of the window.

DATABASE COMPACT UTILITY

Your Compass Access database files sometimes increase in size making certain functions in the Compass software take longer than they should. While the increase in size does not cause any problems within the model, those functions (like Compute the Plan) can be performed faster if the Access database is reduced in size or compacted. Your Compass software has the Database Compact Utility for this reason. Simply select this option to manage the size of your database files. If you work with multiple plan files (SBU or consolidations), you will need to select this option when each file is open as selecting from the consolidated plan will not compact any of your subsidiary plans.

OPTIONS

The options tab controls various settings that, most likely, only need to be set once by the user.

General

Bank name controls what name is displayed on your reports. You should select a **Min(minimum) Equity Ratio** for use in Rate Shock and Risk Tolerance reporting. **Yield Scenario Updates** defaults to 'Always prompt first'. This controls the message received when loading the Nonparallel Rate Scenarios. Non-Parallel Data in Risk Compass defaults to '**Include when possible**'. You can keep the results off the report by selecting '**Always exclude**'. **Hide Instrument IDs** will show the hashed instrument IDs in the **Prepayment Utility**.

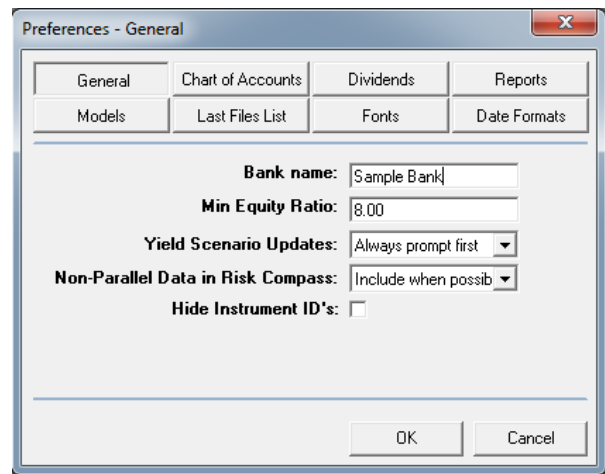
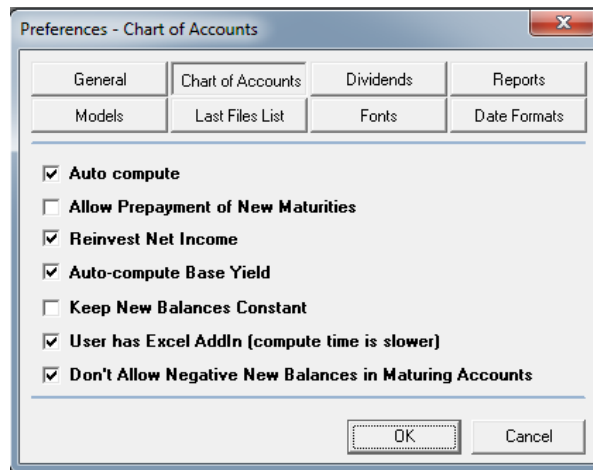


Chart of Accounts

The **Chart of Accounts** tab contains various options:



Auto compute

Please leave this option checked. When checked, the projection screen data will automatically refresh whenever an account is edited.

Allow Pre Payment of New Maturities

Optionality can be modeled for simulation purposes on both the existing portfolio as well as for any new volumes in your plan. Compass will calculate the projected amount of prepayments based upon the new volumes that you project on your Compass account. The prepayment rate will be based on the existing prepayment speeds

Dividends

Dividends cannot be forecasted in the Account Projections screen, as they must be netted to Undivided Profits after year-end. In order to forecast dividends, select Utilities, Options, Dividends from the top menu selection.

For SBU plans, capital is projected at the total Bank level, so Dividends must be forecasted there. If you open an SBU department, the dividends tab will be grayed out. For Holding Company consolidations, Dividends may be forecasted in the Account Projections in Elimination plans only.

There are three methods of forecasting Dividends:

Manual

Enter the expected payout as a positive number in the Dividend grid. The example to the right is for a quarterly payout of \$500,000. (Compass will not allow the entry of negative numbers into the Dividend grid.)

Dividends - Projections			
Projections	Budget	Variance	Fed
	EOM Balance	New Balance	Average Balance
2007	% Net Inc		
Sep	0		

Year	Month	Amount
2008	January	500
	February	
	March	
	April	500
	May	
	June	
	July	500

Percent of Net Income

Payout is based upon YTD Net Income for the prior year. Payout is in even amounts per the period selected.

Excess Equity Payout

Dividend is paid based on Utilities, Options setting for Min(imum) Equity Ratio. Payout Occurs when Capital/Asset Ratio exceeds minimum set. Frequency determines when next payout occurs. For example, if payout is quarterly, then the April payout is based upon the minimum equity position as of March.

Dividends - Projections			
Projections	Budget	Variance	Fed
	EOM Balance	New Balance	Average Balance
2007	Manual		
Sep	0		0
Oct	0		0
Nov	0		0
Dec	0		0
2008 Jan	-500	-500	-250
Feb	-500	0	-500
Mar	-500	0	-500
Apr	-1,000	-500	-750
May	-1,000	0	-1,000
Jun	-1,000	0	-1,000
Jul	-1,500	-500	-1,250
Aug	-1,500	0	-1,500
Sep	-1,500	0	-1,500
Oct	-2,000	-500	-1,750
Nov	-2,000	0	-2,000
Dec	-2,000	0	-2,000
2009 Jan	-500	1,500	-1,250

Dividends - Projections			
Projections	Budget	Variance	Fed
	EOM Balance	New Balance	Average Balance
2007	Ex Equity		
Sep	0		0

The Dividend Payout at left results from the Manual payout option of \$500,000 per quarter starting in January. At year-end, the cumulative balance of Dividends paid in the year will be moved to Undivided Profits. This plan has a cumulative Dividend of \$2,000,000 for 2007 that is moved to Undivided Profits in January of 2008. The net amount of New Balances in January 2008 shows as \$1,500,000 because a \$500,000 payout has occurred in that month.

Reports

Reports can be printed that will show ALL accounts, even those without balances or income by checking the **Include empty line items** box. Branch Assumption files and Rate Shock Policy Limit settings only apply to Risk Compass clients. **Print Assumptions for this Plan** should be selected if you have a SBU or Consolidation and want to print reports for ALL of your plans. The **Policy Limit** settings for Gap and Rate Shock will allow the dynamic selection of shock levels for Risk Compass users. These shock levels will be used in the Executive Summary page of your Risk Compass. Please check your interest rate risk policy before selecting the appropriate level. Once the limit is set, it will be retained until you change it.

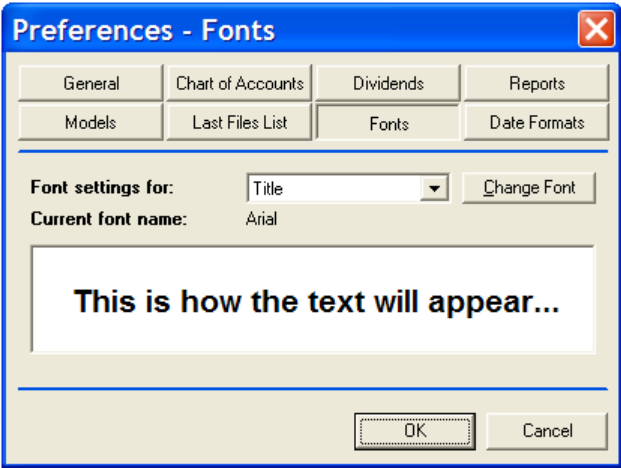
Models

The Models tab controls the pricing model editing on a universal basis. If you will be the sole editor of pricing models, enter your name here and each pricing model you create will contain your name. We suggest you leave the **Pricing edit mode** set to Spread/Factor as you may wish to have both options available when creating models. The **Maximum rate axis setting** should also be left to the default (12) unless you wish to change the chart view of your models.

Last Files List

Use the **Last Files List** to delete the location of any old plans you do not wish to have appear in the Select a Plan File box when you first open the program. This selection *does not* delete the actual Plan.mdb file, just the record of it in the program. Change the Maximum files allowed option if you wish to access more than four plans and have them all show up in the Select a Plan File box.

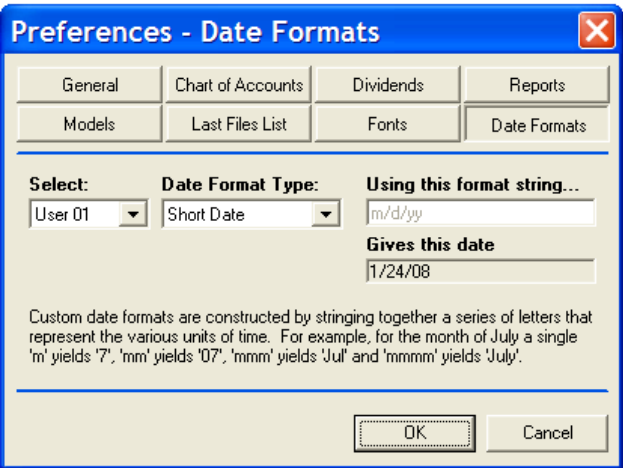
Fonts



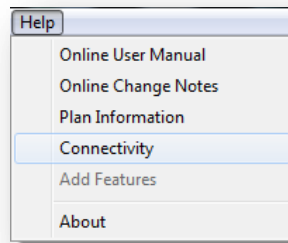
Font options can be changed to affect all reports in the Reporting section. Select the item you wish to change from the 'Font settings for' drop down list and choose the font type by clicking on Change Font.

Date Formats

Date Format selections are available through the Date Format Type drop down list. This will change the display on your reports if you choose to add the date in the Header or Footer.



HELP MENU



USER MANUAL

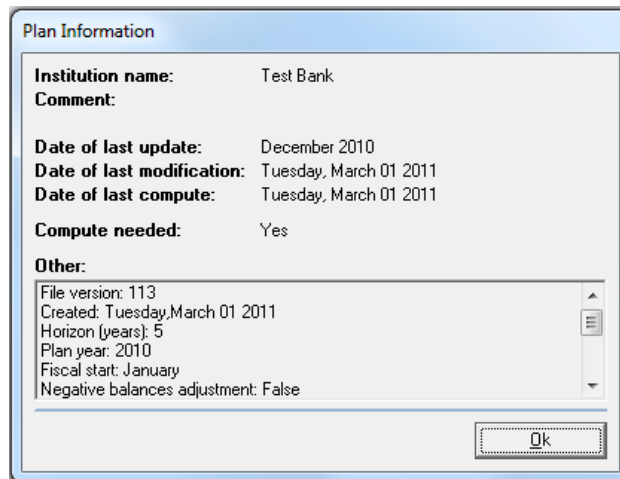
The **Online User Manual** is available online in a pdf format. Downloaded the contents of its entirety or search for any specific information you may need.

ONLINE CHANGE NOTES

Descriptions of the latest Compass enhancements are made available during the upgrade process and can be viewed anytime by selecting the **Online Change Notes** option where you can choose to open or save the notes to a designated location on your computer.

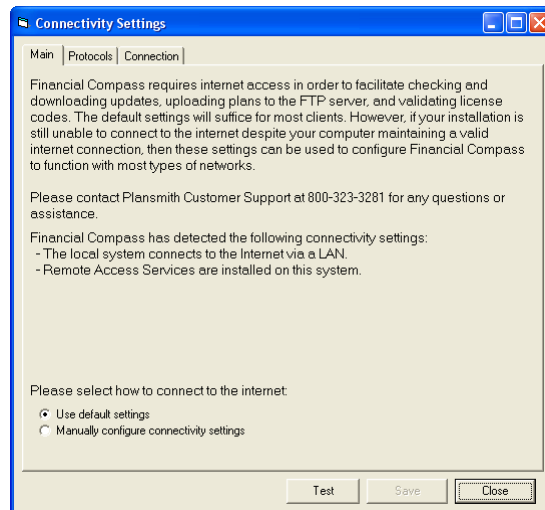
PLAN INFORMATION

We have added this window to check certain settings in your model for diagnostic purposes.



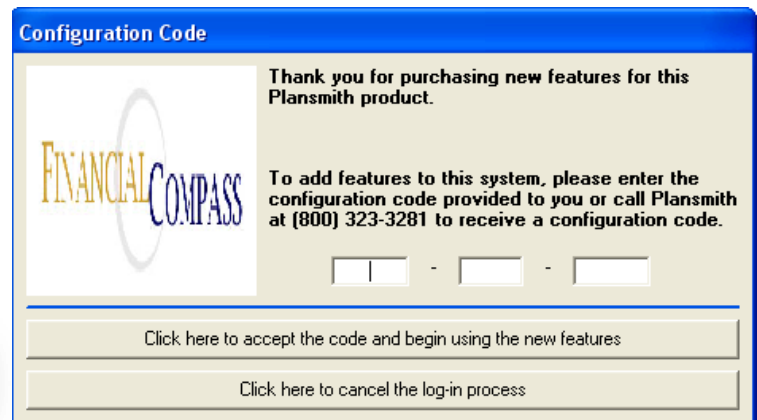
CONNECTIVITY

The Compass software will continually check for updates as well as validate its licensing each time it's used. In order to perform those functions, it will need to connect to the Plansmith web servers. This connection is also necessary if you subscribe to the Non-Parallel Rate Shock module. If there is a problem connecting, the **Connectivity Utility** will allow your IT Department to change your computer settings and allow the connection to be made.



ADD FEATURES

To renew the software license or add features to the software, we will send you a code to key into the Add Features section. Simply copy and paste the code into the left cell which will populate the entire fields, then click to accept the new code and the features will be accessible.



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Compass[®] Calculation Index

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APPENDIX A

ANNUALIZATION, INTEREST AND RATIO CALCULATION METHODOLOGIES

Annualization Methods

A. Annualization of Monthly Interest Income and Interest Expense

Earning Assets and Paying Liabilities are calculated on an account-by-account basis using the accrual method as set in each account's properties. (Please see **Reports, Chart of Accounts** in Compass for each account's properties.) To annualize monthly interest, multiply by the number of days in the year and divide by the number of days in that month.

Example 1:

Monthly Commercial – Variable Interest for March = \$15,000
Accrual Method = Actual Days / 365
Annualized Interest = $(\$15,000 \times 365) / 31 = \$176,613$

Example 2:

Monthly US Government Securities Interest for March = \$1,200
Accrual Method = 30 / 360
Annualized Interest = $(\$1,200 \times 360) / 30 = \$14,400$

B. Annualization of Monthly Other Income, Other Expense and Taxes

All Non-Interest Income, Non-Interest Expense, and Taxes are calculated on an account-by-account basis using an accrual method of 30/360.

Example:

Monthly Salaries for March = \$126,856
Accrual Method = 30 / 360
Annualized Salaries = $(\$126,856 \times 360) / 30 = \$1,522,272$

C. Year-to-Date Income or Expense for Ratio Calculation

Year-to-Date Income or Expense is calculated on an account-by-account basis by summing the Monthly Annualized amounts, then dividing by the Number of Months.

Example:

Annualized Interest for: January (\$156,366), February (\$167,843), and March (\$176,613)
Sum of months amounts = \$500,812
Number of months = 3
Year-to-Date Interest = $\$500,812 / 3 = \$166,937$

D. Year-to-Date Calculation of Average Assets or Average Earning Assets

The Year-to-Date average calculation for Earning Assets and Assets uses the Averages Balance Sheet Report data, summing the Monthly Averages, and then dividing by the Number of Months. Likewise, Balance Sheet balances are derived by summing data for all periods reported and then dividing by the number of periods. When summing numbers together, use only those for the periods chosen.

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Example:

Average Assets for: January (\$79,573), February (\$99,225), March (\$127,611) and April \$128,818
 Sum of months amount = \$435,227
 Number of Months = 4
 Year-to-Date Average = $\$435,227 / 4 = \$108,807$

Note: All Annualized Income or Expense values must be divided by 10 to properly place the decimal. This reflects the division by 100 for percentage conversion and the multiplication by 1,000 because Compass carries balance sheet items in thousands.

Interest Calculation Methods

Type 1: Average Calculation Type Accounts

Calculated Average Balance

User entered EOM Balance (last month + current month) / 2

Annualized Monthly Interest

$((\text{Average Balance} * \text{User entered Average Yield or Cost}) * \text{Days in Year}) / \text{Days in Month}$

Type 2: Maturing Calculation Type Accounts

Annualization

$X \text{ Days in Month} / \text{Days in Year}$

Stable Balance

Starting Balance - Maturing Balance

Stable Income

$(\text{Starting Balance} * \text{Starting Yield}) - (\text{Maturing Balance} * \text{Exit Rate})$

Stable Yield

$\text{Stable Balance} / \text{Stable Income}$

Ending Balance

Starting Balance - Maturing Balance + New Balance

Ending Yield

$((\text{Stable Balance} * \text{Stable Yield}) + (\text{New Balance} * \text{New Rate})) / \text{Ending Balance}$

Monthly Interest

$((\text{Maturing Balance} * (\text{Exit Rate} / 2)) + (\text{Stable Balance} * \text{Stable Yield}) + ((\text{New Amount} * (\text{Entry Rate} / 2))), \text{annualized}$

Monthly Average Balance

$(\text{Starting Balance} + \text{Ending Balance}) / 2$

Type 3: Maturing and Repricing Calculation Type Accounts

Same calculations as Type 2, however, Maturing and New Balances are increased by the Repricing Dollars. Repricing Balances mature at this Issued Rate and are assumed to add to New Balances at the New Rate shown (with ceiling and floors considered).

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Example:

Stable Balance

$(\text{Starting Balance} * \text{Starting Yield}) - (\text{Maturing Balance} * \text{Exit Rate}) - (\text{Repricing Balance} * \text{Repricing Yield})$

Note: The **Account Analysis Report** will display the elements in the above calculations.

Type 4: Maturing Floating Accounts

Annualization

$X \text{ Days in Month} / \text{Days in Year}$

Driver

Driver Rate Index used in the Offering Rate Model

Start Balance Spread (First Projected Month)

$\text{EOM Yield/Cost} - \text{Driver Rate of Last Updated Month}$

Start Balance Spread (Subsequent Months)

Ending Balance Spread from Previous Month

Maturing Balances Exit Rate

$\text{Current Driver Rate} + \text{Starting Balance Spread}$

Stable Balance

$\text{Starting Balance} - \text{Maturing Balance}$

Maturing Balances Exit Rate

$\text{Current Driver Rate} - \text{Starting Balance Spread}$

Stable Balance Yield

$\text{Current Driver Rate} + \text{Starting Balance Spread}$

New Amount Entry Rate

Offering Rate

Ending Balance

$\text{Starting Balance} - \text{Maturing Balance} + \text{New Balance}$

Ending Balance Spread

$((\text{Previous Month's EOM Balance} * (\text{Current Driver Rate} + \text{Starting Spread}) - (\text{Total Maturities} * \text{Total Maturities Exit Rate}) + (\text{New Balance} * \text{Offering Rate}))/ \text{Current EOM Balance} - \text{Current Driver Rate}$

Monthly Interest/Expense

$((\text{Previous Month's EOM Balance} * (\text{Current Driver Rate} + \text{Starting Spread}) - (\text{Total Maturities for Month} * \text{Total Maturities Exit Rate} * .5) + (\text{New Balance} * \text{Offering Rate} * .5)) * \text{Days in Month}/\text{Days in Year}.$

Monthly Yield

$(\text{Monthly Income or Expense} * \text{Days in Year}/\text{Days in month}) / \text{Monthly Average Balance}$

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Monthly Average Balance

$(\text{Starting Balance} + \text{Ending Balance}) / 2$

Note: The **Account Analysis Report** will display the elements in the above calculations.

Ratio Calculation Methods

Monthly ratios are calculated by annualizing each account's monthly income or expense, and dividing by the appropriate divisor, i.e. Average Assets, Earning Assets, Paying Liabilities, etc. The annualized monthly income or expense is stored in the summary files in your data, after the compute. The Year-to-Date ratios are calculated by annualizing each account's income as in the monthly calculation, accumulating each month for as many months as reported, and then dividing by the number of months. This method is used to arrive at the approximate income for the year. This method was used to make this report as time efficient as possible.

TAX CALCULATIONS

Federal Tax Calculation

Federal Taxable Income

$\text{Net Operating Income (Compute Summary)} - \text{Total Federal Tax Exempt Income}^3 \text{ (Compute Audit)}$

Total Tax Due⁴

$\text{Federal Taxable Income}^4 * \text{Nominal Tax Rate (Projections, Tax Information)}$

(If there are State Taxes, **subtract** from Federal Taxable Income, if negative State Taxes, **add** to Federal Taxable Income)

Monthly Tax Calculation

Total Income for Balance of Year

$\text{Net Operating Income (Compute Summary)} - \text{Operating Income (Income Statement) for Actual months}$

Percentage of Total Income

$\text{Monthly Operating Income (Income Statement; e.g. July's)} / \text{Total Income for Balance of Year}$

Monthly Tax

$(\text{Percentage of Total Income} * \text{Annual Taxes (Compute Summary)}) - \text{Actual Tax accrual}$

State Tax Calculation

The same as the Federal calculation except accounts must be designated as State Exempt to exclude from Taxable Income.

³If **TEFRA Calculation** is being used, amount in Compute Audit report reflects TEFRA adjustment. Tax-exempt status on the account level can be viewed on the Chart of Accounts report with the Properties selection **Include Tax, Yes**.

TEFRA Calculation:

$\text{FTE Income} = (\text{Non FTE Income} - \text{TEFRA Disallowance}) + \text{Disallowance} / 1 - \text{Nominal Tax Rate}$

$\text{Disallowance} = (\text{TEFRA Factor} * \text{TEFRA Cost})$

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TEFRA Cost = Interest Expense * (EOM Balance of Tax Exempt Items / (EOM Assets – (EOM Undivided Profits + EOM Current Earnings + Dividends)))

⁴Apply any Loss Carry Forward or Tax Credits here.

Note: If Capital Notes are issued and reside in the Capital section of the Balance Sheet, the expense will not be tax deductible and should be added back into Operating Income for tax calculation purposes.

ACCOUNT MARKET VALUE / DURATION CALCULATION

The components:

Cash Flow

Accounts with Maturities

Cash flows are determined by summing the scheduled maturity, pre-payment, and interest payment for a given period. If you choose to calculate future rate shock for months after the first budget month, then new maturities calculated from new balances for months before the month chosen will also be added to the cash flow.

Non-Maturing Accounts

No decay rate: The entire balance is treated as maturing each month and there is no exposure to changing market rates. Market value is equal to book value and duration is zero.

Decay rate applied to market value / duration: Monthly cash flow is calculated by dividing the last actual end-of-month balance by the number of months entered for the decay rate on that account. The result of this calculation is added to the interest payment for each period to determine the total cash flow for that period. Decay rates may be established or changed by going through the Account Wizard.

Discount Rate

The discount rate for all periods will be equal to the offering rate (rate on new balances) or alternate discount rate for the first projected month.

Residential Real Estate - report run for January
Offering rate (rate on new balance) for January = 7.00%
Discount rate for this account = 7.00%

The discount rate used to calculate non-interest bearing demand deposits with a decay rate is the rate on savings accounts for the first projected month, unless an **Alternate Discount Rate** is selected in the Account Wizard.

Market Value

The discount factor for each period is equal to the cash flow for that period multiplied by the formula:

$$1 / ((1 + ((\text{discount rate} / 12) / 100))^{\text{discount period}})$$

The discount rate is for that specific period and the number of years is counted from the start. Number of years for 1 month out is 1/12. The market value is determined by summing all of the discounted cash flows for this account. Cash flows on adjustable rate accounts can include repricing balances if the Weighted Average Repricing Date (WARD) option in the Account Wizard is set to 'yes'.

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Duration

Duration is determined by multiplying each discounted cash flow by the number of months from the start, summing those numbers and dividing by the market value.

Principal Payment

Total maturity = adjusted scheduled maturity + pre-payment + balloon payment

Adjusted scheduled maturity = scheduled maturity – amortization of prior pre-payments (Amortization determined by account property rate of amortization.)

Interest Payment

Determine **number of months (nom)** for interest payment

1. If account property Payment Frequency = at term, then nom = number of months entered for new maturity attribute, representing the amortization or single payment period

Interest = ((period total maturity * period exit rate) / 12) * **nom**

If **nom** still is zero, then use the following Calculation.

2. If account property Payment Frequency = anything other than, at term
 - a. For 60 monthly time periods = interest is calculated for each period, then reported monthly or, if other than monthly, is summed until payment period indicated
 - b. For 6 five year time periods after 60 months, interest = (period's total maturity * period 's exit rate * 5)

Total cash flow = total maturity + interest payment

DISCOUNT RATE

The account's offering rate (rate on new balances) for the first month following rate shock date (See Offering Rate column or Rate on New Balances report).

DISCOUNT PERIOD = number of months from beginning of calculation / 12

DISCOUNT FACTOR = $1 / ((1 + ((\text{discount rate} / 12) / 100))^{\text{discount period}})$

Note: Must have scientific calculator, a present value table or use a computer to complete this calculation.

DISCOUNTED CASH FLOW = total cash flow * discount factor

MARKET VALUE = sum of the discounted cash flows

DURATION = sum of (each discounted cash flow * (discount Period * 12)) / market value

APPENDIX A

CALCULATION AND APPLICATION OF RATE SHOCK

1. Rate shock income analysis can be performed over a 12-60 month time period. This means that those maturities and repricing balances that occur within the selected time horizon will be considered in the calculations of yield and cost.

The market value component, however, requires the full maturity schedule for the collection of all cash flows (principal and interest) until final repayment. Without the complete maturity schedule, the market value will be computed incorrectly and the bank's market value of equity will be incorrect.
2. Traditionally, rate changes at each shock level are considered to be instantaneous and sustained. Compass, however, offers a "ramped" option for income analysis. Ramping means that a rate change of 100 basis points would slope from zero at the beginning of the period to 100 basis points at the end of the period, increasing by 100/11, or 9.09 basis points starting the second month.

It should be noted that the ramping rate change methods would yield lower average yields and costs than the instantaneous method. However, the examiners may ask for higher overall ranges of shocks. For example, in recent years, an up and down of 200 bp, instantaneous and sustained, has been typical. Under the ramping methods, a 400 bp shock may be requested, sloping from 0 to 400 over the selected time horizon. The impact is nearly the same as a 200 bp instantaneous change.

Plansmith's Compass provides options for performing analyses under either or both conditions.
3. Growth is not considered in the analysis. The volume within each account is held constant over the analysis horizon. Maturities roll-off at their exit rates and are reinvested at the new, shocked rate.

Prepayments are also applied to the maturities if they are modeled under the account Maturity Tab, Scheduled Prepmnts column. This means that categories like mortgages will have their yields accelerate downward faster in falling rate condition because the prepayments are increasing and the amounts are re-invested at the new, lower shocked rate.
4. Because Plansmith's Compass is a true simulation model, the driver rates are shocked and new rates at the account level are modeled if they are linked with the pricing model. If an account is not linked, then the predicted rate is shocked by the full amount of the change. This could yield incorrect results in the case of accounts like regular savings. Savings are often linked in a stair step fashion to recognize the lag in rate movement as interest rates change. Rates on savings do not necessarily move in direct relationship to economic interest rates. This can have a dramatic effect on the cost of funds since savings represents a significant portion of funding costs.
5. Once the account has been modeled, it is not only ready for accurate forecasting but it is also ready for rate shock analysis. Compass calculates both the total interest for the horizon period and the average yield for the period.
6. "Which rate is the zero point or base rate for the shock?" is always a question. The rate used is the rate from the first projected month. If your plan is updated through the end of July, then the offering rate or rate model for new balances in August is used. Rates following the first forecast month are not used in the rate shock.

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CAPITAL ADEQUACY REPORT

Risk Based Capital Factors are applied through the Account Wizard settings. Choose a defined percentage (e.g. 0%, 100%), a Custom percentage, or a Custom percentage by Month

Disallowed Reserve

Total Loan Loss Reserve less 1.25% of Total Risk Weighted Assets (or 0, if the result is negative)

Tier 1 Leverage Ratio

$((\text{Total Tier 1 Capital}) / (\text{Total Assets for the Leverage Ratio})) * 100$

Common Equity Tier 1 Capital Ratio

$((\text{Common Equity Tier 1 Capital}) / ((\text{Total Risk Weighted Assets}) - (\text{Disallowed Reserve}))) * 100$

Tier 1 Capital Ratio

$((\text{Total Tier 1 Capital}) / ((\text{Total Risk Weighted Assets}) - (\text{Disallowed Reserve}))) * 100$

Total Capital Ratio

$((\text{Total Tier 1 Capital} + \text{Tier 2 Capital}) / ((\text{Total Risk Weighted Assets}) - (\text{Disallowed Reserve}))) * 100$

Capital Conservation Buffer (Applied to periods starting January 2016)

Lowest of three calculations:

$(\text{Common Equity Tier 1 Capital Ratio}) - (\text{Common Equity Tier 1 Plus Capital Conservation Buffer})$

$(\text{Tier 1 Capital Ratio}) - (\text{Minimum Tier 1 Capital Plus Capital Conservation Buffer})$

$(\text{Total Capital Ratio}) - (\text{Minimum Total Capital Plus Conservation Buffer})$

CAPITAL RATIOS REPORT

Common Equity Tier 1 - Base

Automatically Included = Common Stock + Surplus + Undivided Profits + Current Earnings + Dividends – Goodwill

Optionally Included (based on Capital Classification Setting for each account) = Borrowed Funds + Preferred Stock + Capital Notes + Net Unrealized AFS G/L + Other Capital

Common Equity Tier 1 Capital

(Common Equity Tier 1 – Base) + any accounts manually added within this folder

Additional Tier 1 Capital

Manually added via accounts opened within this folder

Total Tier 1 Capital

Common Equity Tier 1 Capital + Additional Tier 1 Capital

Tier 2 – Base

Optionally Included (based on Capital Classification Setting) = Borrowed Funds + Preferred Stock + Capital Notes + Net Unrealized AFS G/L + Other Capital

Limited ALLL

The maximum of 1.25% of Total Risk Weighted Assets or Total Loan Loss Reserve

Tier 2 Capital

(Tier 2 – Base) + Limited ALLL + any accounts manually added within this folder

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Total Capital

Total Tier 1 Capital + Tier 2 Capital

Quarterly Average Assets

((Current Month MTD Average Assets) + (Last Month MTD Average Assets) + (Two Months Ago MTD Average Assets))/3

Total Assets for the Leverage Ratio

Quarterly Average Assets + any accounts manually added within this folder

Risk Weighted Assets

Total of Risk Based Capital Factor calculation for each asset account. These are applied through the Account Wizard settings. Choose a defined percentage (e.g. 0%, 100%), a Custom percentage, or a Custom percentage by Month

Total Risk Weighted Assets

Risk Weighted Assets + any accounts manually added within this folder

Disallowed Reserve

Total Loan Loss Reserve less 1.25% of Total Risk Weighted Assets (or 0, if the result is negative)

Net Risk Weighted Assets

Total Risk Weighted Assets + Disallowed Reserve

Tier 1 Leverage Ratio

((Total Tier 1 Capital) / (Total Assets for the Leverage Ratio)) * 100

Common Equity Tier 1 Capital Ratio

((Common Equity Tier 1 Capital) / ((Total Risk Weighted Assets) – (Disallowed Reserve))) * 100

Tier 1 Capital Ratio

((Total Tier 1 Capital) / ((Total Risk Weighted Assets) – (Disallowed Reserve))) * 100

Total Capital Ratio

((Total Tier 1 Capital + Tier 2 Capital) / ((Total Risk Weighted Assets) – (Disallowed Reserve))) * 100

Capital Conservation Buffer (Applied to periods starting January 2016)

Lowest of three calculations:

(Common Equity Tier 1 Capital Ratio) – (Common Equity Tier 1 Plus Capital Conservation Buffer)

(Tier 1 Capital Ratio) - (Minimum Tier 1 Capital Plus Capital Conservation Buffer)

(Total Capital Ratio) – (Minimum Total Capital Plus Conservation Buffer)

CET1 less CET1 Minimum plus Buffer (Applied to periods starting January 2016)

(Common Equity Tier 1 Capital Ratio) – (Common Equity Tier 1 plus Capital Conservation Buffer (per table))

Tier 1 less Tier 1 Minimum plus Buffer (Applied to periods starting January 2016)

(Tier 1 Capital Ratio) – (Minimum Tier 1 Capital plus Capital Conservation Buffer (per table))

Total Capital Ratio (Applied to periods starting January 2016)

(Total Capital Ratio) – (Minimum Total Capital plus Conservation Buffer (per table))

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INCOME STATEMENT WITH RATIOS REPORT

Note: Report selection **FTE** = “Yes” will adjust Federally Tax Exempt accounts' income by multiplying by 1.51515 for Federal Nominal Tax Rates of 34% or $1 / 1 - \text{Nominal Tax Rate}$ (if different than 34%). Accounts with **TEFRA** Account Properties will have their income adjusted according to the TEFRA adjustment setting present (see Tax Calculations).

Average Assets

Monthly: Average for Month, YTD: Sum of Monthly Averages / Number of Months

Source: Balance Sheet Report – Average Balance

Average Earning Assets

Monthly: Average for Month, YTD: Sum of Monthly Average Earning Assets / Number of Months

Earning Assets are defined as all asset accounts with Interest Income.

Source: Balance Sheet Report – Average Balance

Average Paying Liabilities

Monthly: Average for Month, YTD: Sum of Monthly Average Paying Liabilities / Number of Months

Source: Balance Sheet Report – Average Balance

Average Risk Based Capital

Monthly: Average for Month, YTD: Sum of (Monthly Average Equity – Net Unrealized AFS G/L – Goodwill + Loan Loss Reserve up to 1.25% of Risk Weighted Assets) / Number of Months

Source: Balance Sheet Report – Average Balance

Average Required Capital

Monthly: Average for Month, YTD: Sum of (Monthly Average Assets by Account * Risk Based Capital factor for each Account) * Minimum Equity Ratio specified in Utilities, Options, General section) / Number of months

Loan Loss Reserve is not included.

Source: Balance Sheet Report – Average Balance, Capital Adequacy Report for Risk Based Capital factors

Average Equity

Monthly: Average for Month, YTD: SUM of Monthly Average Total Capital / Number of Months

Source: Balance Sheet Report – Average Balance

Return on Average Assets

$$\frac{(((\text{Annualized Interest Income (including Loan Fees)} - \text{Annualized Interest Expense}) + (\text{Annualized Other Income} - \text{Annualized Operating Expense}) - \text{Annualized Total Taxes}))}{\text{Average Assets} / 10}$$

Return on Average Equity

$$\frac{(((\text{Annualized Interest Income (including Loan Fees)} - \text{Annualized Interest Expense}) + (\text{Annualized Other Income} - \text{Annualized Operating Expense}) - \text{Annualized Total Taxes}))}{(\text{Average Equity} - \text{Average Capital Notes}) / 10}$$

Break-Even Yield

$$\frac{(((\text{Annualized Operating Expense} + \text{Annualized Interest Expense}) - (\text{Annualized Other Income} - \text{Annualized Loan Fees}))}{\text{Annualized Average Earning Assets} / 10}$$

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Net Overhead

$$\frac{\text{Annualized Operating Expense (excluding Loan Loss Provision)} - \text{Annualized Other Income (excluding Loan Fees)}}{\text{Average Assets}} / 10$$

Interest Income + Loan Fees / Earning Assets

$$\frac{\text{Annualized Interest Income (including Loan Fees)}}{\text{Average Earning Assets}} / 10$$

Interest Income / Earning Assets

$$\frac{\text{Annualized Interest Income (excluding Loan Fees)}}{\text{Average Earning Assets}} / 10$$

Interest Expense / Earning Assets

$$\frac{\text{Annualized Interest Expense}}{\text{Earning Assets}} / 10$$

Net Interest Margin

$$\frac{\text{Annualized Interest Income (including Loan Fees)} - \text{Annualized Interest Expense}}{\text{Average Earning Assets}} / 10$$

Interest Expense / Paying Liabilities

$$\frac{\text{Annualized Interest Expense}}{\text{Paying Liabilities}} / 10$$

Paying Liabilities are those liabilities with interest expense.

Cost of Funds

$$\frac{\text{Annualized Interest Expense}}{\text{Average Deposits} + \text{Borrowed Funds}} / 10$$

Interest Spread

$$\left(\frac{\text{Annualized Interest Income (including Loan Fees)}}{\text{Average Earning Assets}} / 10 \right) - \left(\frac{\text{Annualized Interest Expense}}{\text{Paying Liabilities}} / 10 \right)$$

Efficiency Ratio

$$\frac{\text{Annualized Operating Expense (excluding Loan Loss and Investment Loss Provisions)} - \text{Annualized Extraordinary Expense}}{\text{Annualized Interest Income (including Loan Fees)} - \text{Annualized Interest Expense} + \text{Annualized Non-interest Income} - \text{Annualized Extraordinary Income}} * 100$$

EOM Assets - Source: EOM Balance Sheet

Earning Assets Ratio

$$\frac{\text{Average Earning Assets}}{\text{Average Assets}} * 100$$

Equity / Assets

$$\frac{\text{EOM Equity}}{\text{EOM Assets}} * 100$$

EOM Equity / EOM Total Deposits

$$\frac{\text{EOM Equity}}{\text{EOM Total Deposits}} * 100$$

Loan / Deposit Ratio

$$\frac{\text{Average Loans}}{\text{Average Deposits}} * 100$$

Loan / Asset Ratio

$$\frac{\text{Average Loans}}{\text{Average Assets}} * 100$$

Loan Loss Reserve / Loans Ratio

$$\frac{\text{Absolute (Average Loan Loss Reserve)}}{\text{Average Loans}} * 100$$

APPENDIX A

Non-Taxable Asset Ratio

$(\text{Average Tax Exempt Assets} / \text{Average Total Assets}) * 100$
Only Earning Assets considered for Tax Exempt Assets

Demand Deposits / Total Deposits Ratio

$(\text{Average Demand Deposits} / \text{Average Total Deposits}) * 100$

Time Deposits / Total Deposits

$(\text{Average Time Deposits} / \text{Average Total Deposits}) * 100$

Free Funds Ratio

$((\text{Average Earning Assets} - \text{Average Paying Liabilities}) / \text{Average Earning Assets}) * 100$

Liquidity Ratio

$((\text{EOM Cash \& Due} + \text{EOM Fed Funds Sold} + \text{EOM Total Securities} - \text{EOM Pledged Securities}) / (\text{EOM Total Liabilities} - \text{EOM Other Liabilities} - \text{EOM Pledged Securities})) * 100$

Tier 1 Leverage Ratio

$((\text{Total Tier 1 Capital}) / (\text{Total Assets for the Leverage Ratio})) * 100$

Common Equity Tier 1 Capital Ratio

$((\text{Common Equity Tier 1 Capital}) / ((\text{Total Risk Weighted Assets}) - (\text{Disallowed Reserve}))) * 100$

Tier 1 Capital Ratio

$((\text{Total Tier 1 Capital}) / ((\text{Total Risk Weighted Assets}) - (\text{Disallowed Reserve}))) * 100$

Total Capital Ratio

$((\text{Total Tier 1 Capital} + \text{Tier 2 Capital}) / ((\text{Total Risk Weighted Assets}) - (\text{Disallowed Reserve}))) * 100$

Capital Conservation Buffer (Applied to periods starting January 2016)

Lowest of three calculations:

$(\text{Common Equity Tier 1 Capital Ratio}) - (\text{Common Equity Tier 1 Plus Capital Conservation Buffer})$

$(\text{Tier 1 Capital Ratio}) - (\text{Minimum Tier 1 Capital Plus Capital Conservation Buffer})$

$(\text{Total Capital Ratio}) - (\text{Minimum Total Capital Plus Conservation Buffer})$

RATE SHOCK INCOME REPORT

Rate Shock Income illustrates the impact of rate changes on your Net Interest Income. The **Earnings Change** is displayed as changes between the zero point (No rate change) and each respective rate shock increment.

APPENDIX A

Rate Shock Sample 2 Year Rate Shock - Income As of the end of December, 2013									
	-400	-300	-200	-100	0	100	200	300	400
Interest Income									
Cash & Due	1,725,090	1,725,090	1,725,090	1,725,090	2,475,386	10,828,416	19,167,669	27,514,568	35,860,289
Securities	14,244,860	14,244,860	14,642,820	15,341,510	16,363,900	17,942,550	19,396,460	20,880,790	22,322,840
Loans	96,805,220	97,957,460	101,985,100	106,098,900	110,451,900	118,788,600	127,061,300	135,592,400	144,042,200
Total Interest Income	112,775,175	113,927,400	118,353,019	123,165,508	129,291,231	147,559,510	165,625,397	183,987,778	202,225,359
Interest Expense									
Interest Bearing Deposits	7,147,687	7,151,456	7,166,528	7,181,601	9,066,348	20,161,470	25,703,960	29,584,590	33,929,700
Borrowed Funds	287,346	287,346	287,346	287,346	422,568	1,136,708	1,571,953	2,135,376	2,698,800
Total Interest Expense	7,435,033	7,438,802	7,453,874	7,468,947	9,488,915	21,298,176	27,275,913	31,719,969	36,628,499
Net Interest Income	105,340,142	106,488,599	110,899,145	115,696,560	119,802,317	126,261,334	138,349,485	152,267,809	165,596,860
Earnings Change	(14,462,175)	(13,313,718)	(8,903,172)	(4,105,756)	0	6,459,017	18,547,168	32,465,492	45,794,543
Percentage Change	-12.07%	-11.11%	-7.43%	-3.43%	0.00%	5.39%	15.48%	27.10%	38.23%

To calculate the **Earnings Change**, the Net Interest Income at that the zero point is subtracted from the Net Interest Income at that rate shock point. In the example above, the Net Interest Income at the zero point is \$119,802,317 and the Income at -100 bp is \$115,696,560, thus giving an Earnings Change of negative \$4,105,756. The **Percentage Change** is derived from the **Earnings Change**.

If you have selected the **Ramped Shock** calculation method, the full shock increment will be reached at the end of twelve months. For example, the shock of -100 bp is only a change of -9.0909 bps the second month, -18.1818 bps the third, and so on. If the box remains unchecked, then the full shock is realized starting in the first projected month.

Please note that the zero point, or no change in rates, is calculated from the current market rate on each account or the rate that appears on the Offering Rates report for the first projected month.

Your concern is for the adverse impact of interest rate changes or a negative **Earnings Change**.

APPENDIX A

RATE SHOCK NET INCOME REPORT

If your institution has significant rate sensitive other income and/or operating expenses, you may be asked to measure their impact in a rate shock analysis. The Rate Shock Net Income report can incorporate non-interest income, non-interest expenses and effective tax rates into the standard rate shock simulation. Net Income, Return on Assets and Return on Equity are reflected for the various rate shock levels. (This report is not available for nonparallel rate shocks. If you have questions on running nonparallel shocks for Net Income results, please call Support at 800-323-3281.)

To access the Rate Shock Net Income report, right click on the Rate Shock Income report and select 'Yes' to 'Show Net Income'. If you would like to review this information on a regular basis, we suggest using the 'Save As' option and save the report to your list.

Report Properties - Rate Shock Net Income

Level of Detail: Summary

Page break after assets: Yes

Show Future Rate Shock: No

Show Net Income: Yes

Header Cancel Save As Save Preview

Incorporating non-interest income and expenses into the rate shock results is easy. The report will default to show the *forecasted* **Loan Fees, Loan Loss Provision, Non-Interest Income** and **Non-Interest Expense** for the period of the shock. For example, in the sample below, the results are for a *two year* shock as of month end February 2014. The forecasted **Loan Fees, Loan Loss Provision, Non-Interest Income** and **Non-Interest Expense** are constant in all rate scenarios and are derived from the *two year* projection from March 2014 through February 2016. (A one year analysis will use a one year forecast, three year the three year forecast, etc.)

APPENDIX A

Rate Shock Net Income									
2 Year Rate Shock - Income									
As of the end of February, 2014									
	-200	-150	-100	-50	0	100	200	300	400
Interest Income									
Cash & Due	(1,108)	(1,108)	(1,108)	(1,108)	87,248	973,910	1,860,881	2,747,792	3,634,763
Securities	7,650,409	8,003,385	7,212,954	7,876,747	8,808,940	10,657,320	12,297,460	14,014,710	15,774,260
Loans	67,044,360	67,763,500	68,774,770	69,914,580	71,079,400	75,734,580	82,798,010	89,835,300	96,830,160
Equity Securities	174,935	197,714	220,492	243,270	266,048	311,604	357,160	402,716	448,272
Total Interest Income	74,868,593	75,963,493	76,207,106	78,033,488	80,241,645	87,677,425	97,313,516	107,000,529	116,687,443
Loan Fees	835,200	835,200	835,200	835,200	835,200	835,200	835,200	835,200	835,200
Asset Income	75,703,793	76,798,693	77,042,306	78,868,688	81,076,845	88,512,625	98,148,716	107,835,729	117,522,643
Interest Expense									
Interest Bearing Deposits	927,770	927,770	927,770	927,770	1,131,241	6,754,855	11,752,070	16,724,300	21,761,310
Borrowed Funds	67,338	67,338	67,338	67,338	102,357	466,002	1,119,762	1,788,755	2,457,747
Total Interest Expense	995,110	995,110	995,110	995,110	1,233,598	7,220,860	12,871,831	18,513,053	24,219,062
Net Interest Income	74,708,684	75,803,584	76,047,197	77,873,579	79,843,247	81,291,765	85,276,885	89,322,676	93,303,582
Loan Loss Provision	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000
Net Interest Income After Provision	74,183,684	75,278,584	75,522,197	77,348,579	79,318,247	80,766,765	84,751,885	88,797,676	92,778,582
Non-Interest Income	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368
Non-Interest Expense	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902
Operating Income	25,872,150	26,967,050	27,210,663	29,037,045	31,006,713	32,455,231	36,440,351	40,486,142	44,467,048
Federal Tax	8,279,401	8,629,782	8,707,741	9,292,205	9,922,523	10,386,066	11,661,353	12,956,055	14,229,993
State Tax	1,326,735	1,382,882	1,395,375	1,489,033	1,590,038	1,664,319	1,868,678	2,076,148	2,280,290
Net Income	16,266,014	16,954,385	17,107,547	18,255,807	19,494,152	20,404,846	22,910,320	25,453,939	27,956,764
Earnings Change	(3,228,138)	(2,539,766)	(2,386,605)	(1,238,345)	0	910,694	3,416,168	5,959,788	8,462,613
Percentage Change	-16.56%	-13.03%	-12.24%	-6.35%	0.00%	4.67%	17.52%	30.57%	43.41%
Return on Average Assets	0.74	0.77	0.78	0.83	0.89	0.93	1.04	1.16	1.27
Return on Average Equity	6.48	6.76	6.82	7.28	7.77	8.13	9.13	10.15	11.14

[Compute](#)
[Reporting](#)
[Utilities](#)
[Help](#)

Compute the Plan
 Compute Parallel Rate Shock
 Compute Non-Parallel Rate Shock
 Externally Calculated Rate Shock Values

If your rate sensitive non-interest income/expense items will vary by shock scenario, you will need to key those values into the report. To enter those values, select Compute, Externally Calculated Rate Shock Values.

In the example below we want to show the Loan Fee income varying by rate shock increment. Financial Compass does not model this, so you will need to key in your externally calculated values into the Inc/Exp Forecasts grid.

Inc/Exp Forecasts

Remember that the rate shock was run for a two year period, so the income figures should be the sum for two years.

Market Values Inc/Exp Forecasts									
View Settings									
<input checked="" type="radio"/> Default View <input type="checkbox"/> Hide Folders <input type="radio"/> Show All Eligible <input type="radio"/> Show Activated Only									
Shock Level:	-4	-3	-2	-1	0	1	2	3	4
Shock amount during most recent Rate Shock:	-200	-150	-100	-50	0	100	200	300	400
Non-Interest Income									
Loan Fees	1,135,200	1,135,200	1,035,200	935,200	835,200	735,200	635,200	535,200	535,200
Non-Interest Expense									
Loan Loss Provision									

APPENDIX A

If you choose to enter Externally Calculated numbers into any line item (e.g. Loan Fees), you will need to key in values for **ALL** rate shock points. After typing in the numbers, run the Compute the Plan and Compute Parallel Rate Shock and Compute Non-Parallel Rate Shock. The figures entered will now show in the Rate Shock Net Income report:

Rate Shock Net Income									
2 Year Rate Shock - Income									
As of the end of February, 2014									
	-200	-150	-100	-50	0	100	200	300	400
Interest Income									
Cash & Due	(1,108)	(1,108)	(1,108)	(1,108)	87,248	973,910	1,860,881	2,747,792	3,634,763
Securities	7,650,409	8,003,385	7,212,954	7,876,747	8,808,940	10,657,320	12,297,460	14,014,710	15,774,260
Loans	67,044,360	67,763,500	68,774,770	69,914,580	71,079,400	75,734,580	82,798,010	89,835,300	96,830,160
Equity Securities	174,935	197,714	220,492	243,270	266,048	311,604	357,160	402,716	448,272
Total Interest Income	74,868,593	75,963,493	76,207,106	78,033,488	80,241,645	87,677,425	97,313,516	107,000,529	116,687,443
Loan Fees	1,135,200	1,135,200	1,035,200	935,200	835,200	735,200	635,200	535,200	535,200
Asset Income	76,003,793	77,098,693	77,242,306	78,968,688	81,076,845	88,412,625	97,948,716	107,535,729	117,222,643
Interest Expense									
Interest Bearing Deposits	927,770	927,770	927,770	927,770	1,131,241	6,754,855	11,752,070	16,724,300	21,761,310
Borrowed Funds	67,338	67,338	67,338	67,338	102,357	466,002	1,119,762	1,788,755	2,457,747
Total Interest Expense	995,110	995,110	995,110	995,110	1,233,598	7,220,860	12,871,831	18,513,053	24,219,062
Net Interest Income	75,008,684	76,103,584	76,247,197	77,973,579	79,843,247	81,191,765	85,076,885	89,022,676	93,003,582
Loan Loss Provision	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000
Net Interest Income After Provision	74,483,684	75,578,584	75,722,197	77,448,579	79,318,247	80,666,765	84,551,885	88,497,676	92,478,582
Non-Interest Income	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368	31,666,368
Non-Interest Expense	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902	79,977,902
Operating Income	26,172,150	27,267,050	27,410,663	29,137,045	31,006,713	32,355,231	36,240,351	40,186,142	44,167,048
Federal Tax	8,375,405	8,725,786	8,771,744	9,324,207	9,922,523	10,354,065	11,597,351	12,860,052	14,133,990
State Tax	1,342,120	1,398,267	1,405,631	1,494,161	1,590,038	1,659,191	1,858,422	2,060,764	2,264,906
Net Income	16,454,626	17,142,997	17,233,288	18,318,677	19,494,151	20,341,974	22,784,578	25,265,327	27,768,152
Earnings Change	(3,039,526)	(2,351,154)	(2,260,864)	(1,175,475)	0	847,823	3,290,427	5,771,175	8,274,000
Percentage Change	-15.59%	-12.06%	-11.60%	-6.03%	0.00%	4.35%	16.88%	29.60%	42.44%
Return on Average Assets	0.75	0.78	0.78	0.83	0.89	0.93	1.04	1.15	1.26
Return on Average Equity	6.56	6.83	6.87	7.30	7.77	8.11	9.08	10.07	11.07

As in the standard Rate Shock Income report, we are measuring the impact of rate change on earnings. The **Earnings Change** is displayed as the change between the zero point (No rate change) and each respective rate shock increment.

To calculate **Earnings Change**, the Net Income at the zero point is subtracted from the Net Income at each shock point. In the example above, the Net Income at the zero point is \$19,494,151 and the Net Income at -100 bp is \$17,233,288, thus giving an **Earnings Change** of -\$2,260,864.

APPENDIX A

Percentage Change is the Earnings change from each shock increment from the zero point in percentage terms.

Return on Average Assets is computed by dividing the Net Income by the Average Assets. The Net Income is first divided by the number of years in the shock to get an annual income number. If the shock period is two years, divide Net Income by two, three years divide by three, etc. As the rate shock analysis is a no growth scenario, the Average Assets are the same as the last actual month's ending assets.

Return on Average Equity is computed by dividing the Net Income by the Average Equity. The Net Income is first divided by the number of years in the shock to get an annual income number. If the shock period is two years, divide Net Income by two, three years divide by three, etc. As the rate shock analysis is a no growth scenario, the Average Equity is the same as the last actual month's ending equity.

Taxes are calculated using an effective tax rate derived from your forecast. In this example, the income statement projected total for Operating Income from March 2014 through February 2016 is \$35,540,034. Federal Taxes are also forecasted in Compass as \$11,373,238 and State Taxes are \$1,822,510.

	2014	2015	2016	2017	2018
State taxes Rate	5.00	5.00	5.00	5.00	5.00
Federal taxes Rate	35.00	35.00	35.00	35.00	35.00
Federal tax credits	0.00	0.00	0.00	0.00	0.00
Federal tax loss carry forward	0.00	0.00	0.00	0.00	0.00
Other adjustments: State	0.00	0.00	0.00	0.00	0.00
Other adjustments: Federal	0.00	0.00	0.00	0.00	0.00

Should state taxes be distributed according to net pre-tax income? Yes

Should federal taxes be distributed according to net pre-tax income? Yes

Allow for the calculation of negative state taxes? No

Edit Budget Taxes Ok Cancel

To calculate the effective **Federal Tax Rate**, the formula is:

$$\text{Federal Tax} / (\text{Operating Income} - \text{State Tax})$$

Operating Income	35,540,034
Federal Tax	11,373,238
State Tax	1,822,510

To calculate the effective **State Tax Rate**, the formula is:

$$\text{State Tax} / \text{Operating Income}$$

Net Income	22,344,286
-------------------	------------

The tax amounts in the forecast are already adjusted for any tax exempt items, as well as any adjustments you have in your Tax Information, for the period being analyzed.

If you have questions regarding this analysis or need assistance in setting policy limits for Net Income, ROA or ROE, please call Support at 1-800-323-3281.

APPENDIX A**RATE SHOCK MARKET VALUE REPORT**

Rate Shock Market Value illustrates the impact of rate changes on your equity. The Market Value of Equity (also referred to as Economic Value of Equity) is the theoretical liquidation value of your institution in a changing rate environment.

Rate Shock Sample Rate Shock – Market Value As of the end of December, 2013									
	-400	-300	-200	-100	0	100	200	300	400
Assets									
Cash & Due	448,239	448,239	448,239	448,239	448,227	448,096	447,966	447,838	447,710
Securities	422,409	422,409	418,851	414,534	407,825	394,245	380,831	368,117	356,105
Loans	1,328,485	1,317,106	1,274,131	1,234,459	1,197,543	1,163,369	1,132,175	1,103,651	1,077,319
Loan Loss Reserve	(18,519)	(18,519)	(18,519)	(18,519)	(18,519)	(18,519)	(18,519)	(18,519)	(18,519)
Fixed Assets	51,671	51,671	51,671	51,671	51,671	51,671	51,671	51,671	51,671
Intangible Assets	14,645	14,645	14,645	14,645	14,645	14,645	14,645	14,645	14,645
OREO	23,572	23,572	23,572	23,572	23,572	23,572	23,572	23,572	23,572
Other Assets	63,851	63,851	63,851	63,851	63,851	63,851	63,851	63,851	63,851
Total Assets	2,334,352	2,322,973	2,276,440	2,232,451	2,188,814	2,140,929	2,096,191	2,054,825	2,016,353
Liabilities									
Demand Deposits	436,134	436,134	436,134	436,134	424,378	408,106	392,693	378,087	364,240
Interest Bearing Deposits	1,467,799	1,467,801	1,467,809	1,467,817	1,461,171	1,441,011	1,420,405	1,399,488	1,379,555
Borrowed Funds	84,514	84,514	84,514	84,514	84,514	84,514	84,514	84,514	84,514
Other Liabilities	22,874	22,874	22,874	22,874	22,874	22,874	22,874	22,874	22,874
Total Liabilities	2,011,320	2,011,322	2,011,330	2,011,338	1,992,936	1,956,504	1,920,485	1,884,962	1,851,182
Market Value of Equity	323,032	311,651	265,110	221,113	195,878	184,425	175,706	169,863	165,171
Equity Change	127,154	115,773	69,232	25,235	0	(11,453)	(20,172)	(26,015)	(30,707)
% Change in MV of Equity	64.91%	59.10%	35.34%	12.88%	0.00%	-5.85%	-10.30%	-13.28%	-15.68%
Mark to Market Capital Ratio	13.84%	13.42%	11.65%	9.90%	8.95%	8.61%	8.38%	8.27%	8.19%
Duration of Equity (months)	70.16								

To calculate **Equity Change**, the Market Value of Equity at the zero point is subtracted from the Market Value of Equity position at that rate change point. For example, at +100 bp change, the Market Value of Equity *decreases* to 184,425 from which we subtract the zero point value of 195,878 to get –11,453.

The **% Change in MV of Equity** relates the change in Market Value of Equity to the Zero Point in percentage form.

The **Mark to Market Capital Ratio** relates the change in Market Value of Equity to the Market Value of the Total Assets. At +100 bp it is $184,425 / 2,140,929 = 8.61\%$

Duration of Equity (months) is a volatility measure. It is useful to describe the percentage change in rates. This bank has a Duration of Equity of 70.16 months. Divide 70.16 by twelve to get years and the duration in years is 5.84. This is equal to the percentage change in value at +100BPS on the rate shock.

The **Ramped Shock** option *does not* apply to the Market Value calculation. The Market Value shock is immediate and sustained. As with the income shock, we are only concerned about the adverse impact of rate changes.

APPENDIX A

RATE SHOCK YIELD REPORT

Subtotaling for Yields and Costs

Account

Income or Expense (Rate Shock Income report) / Average Balance*

Subtotal and Totals

Sum of Incomes (Rate Shock Income report) / Sum of Average Balances

Interest Spread

(Interest Income / Earning Assets**) – (Interest Expense / Paying Liabilities**)

Net Interest Income

(Net Interest Income (Rate Shock Income report) / Earnings Assets**)

- (Note: The Average and EOM balance for the month analyzed will be the same, as the volume component is held constant.)

* Earning Assets and Paying Liabilities are the balances of assets and liabilities that have interest income or expense in the rate shock analysis.

RISK TOLERANCE REPORT

Total Assets Growth

(Ending Assets – Beginning Assets) / Beginning Assets

Source: EOM Balance Sheet

Averages

(Ending + Beginning) / 2

Earning Assets Growth

(Ending Earning Assets – Beginning Earning Assets) / Beginning Earning Assets

Equity Ratio

EOM Capital / EOM Assets

Will be equal to Minimum Equity
(Utilities, Options) if earnings needed.

Overhead Expenses (taken from plan)

Derived from projections for the shock period.

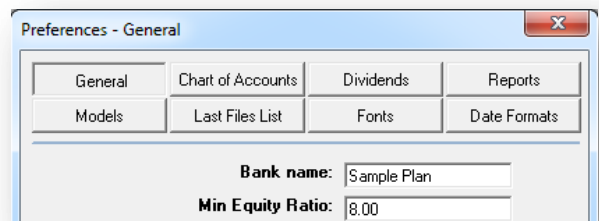
Minimum Required Net Interest Income

Total Overhead Expenses covered by Net Interest
Margin + Earnings needed to meet Equity formation
and dividends

Estimated Taxes = Projected Taxes divided by Projected Pre-Tax Income over shock period.

Net Interest Margin with Flat Rates

Net Interest Margin from Rate Shock Yield Zero Point*Earning Assets (Averages)



APPENDIX A**Risk Tolerance****Net Interest Margin with Flat Rates – Minimum Required Net Interest Income****Calculation of Minimum Required Net Interest Margin**

(000's omitted)

Equity Formation & Dividends	Mar. 2014	Growth	Mar. 2016	Averages	Amount Needed	% Earn Assets	% Avg Assets
Total Assets	1,979,659	10.24%	2,182,338	2,080,998			
Earning Assets	1,924,708	9.65%	2,110,391	2,017,549			
Equity Formation	167,857		167,857	167,857	0	0.00	0.00
Equity Needed for Min	0		6,730	3,365	6,730	0.17	0.16
Equity Ratio	8.48%		8.00%				
Dividends					0	0.00	0.00
Earnings needed to meet equity formation and dividends					6,730	0.17	0.16
Overhead Expenses (taken from plan)							
Non-Interest Income (a negative expense)					(77,734)	(1.93)	(1.87)
Non-Interest Expense					147,419	3.65	3.54
Loan Loss Provision					7,950	0.20	0.19
Estimated Taxes (Effective Rate=31% applied to Required Earnings)					3,001	0.07	0.07
Total Overhead Expenses covered by Net Interest Margin					80,636	2.00	1.94
Minimum Required Net Interest Income					87,366	2.17	2.10

Calculation of Risk Tolerance

Net Interest Margin with Flat Rates	155,150	3.85	3.73
Minimum Required Net Interest Margin over next 24 months	87,366	2.17	2.10
Risk Tolerance (Maximum allowable Net Interest Margin Change)	67,784	1.68	1.63

SUMMARY MARKET VALUE DURATION REPORT

The Market Values and Dur(ation) figures will be calculated according to the formulas for Market Value and Duration located previously in this **Appendix A**. These figures are the same as the Market Value and Duration at the Zero point of the Rate Shock Market Value report.

Note: An account will be considered an Earning Asset if there is income or expense posted to that account in any given month.

OFFERING RATE REPORT**Monthly Offering Rate on Individual Accounts**

Offering Rate Column, Monthly Value

Quarterly Offering Rate on Individual Accounts

Weighted average of Monthly Rates for period

Sum of ((New Balance for Month/Total New Balances for period)*Monthly Offering Rate))

Annual Offering Rate on Individual Accounts

Weighted average of Monthly Rates for period

Sum of ((New Balance for Month/Total New Balances for period)*Monthly Offering Rate))

APPENDIX A**Avg Monthly Offering Rate on Subtotals and Totals**

Weighted Average Rate for all accounts with New Balances

Example: **Weighted Offering Rates** are determined by calculating each account's percentage of the Total New Balances for the period, multiplying that percentage by the account's Offering Rate for that month, and summing the results for that total or subtotal.

Accounts	Offering Rate	New Bals	% of Total New Balances	% *Rate
Comm'l Loans – Fixed	7.50	297	0.0932788945	0.699591709
Comm'l Loans – Adjust	7.50	121	0.0380025126	0.285018844
Comm'l Loans – Floating	8.00	1,081	0.3395100503	2.716080402
Floor Plan Loans	8.00	<u>1,685</u>	0.5292085427	<u>4.233668342</u>
Total New Balances		3,184	Weighted Average Offering Rate	7.934359297

Note: Report selection FTE = "Yes" will adjust Federally Tax Exempt accounts' Offering Rate by multiplying by 1.51515 for Federal Nominal Tax Rates of 34% or 1 / 1 - Nominal Tax Rate (if different than 34%).

Accounts with TEFRA Account Properties will have their Offering Rate adjusted according to the TEFRA adjustment setting present (see Tax Calculations).

Avg Quarterly Totals and Subtotals

Sum of (Account New Balances for period / Total Category New Balances for period)*Weighted Average of Offering Rates for period.

Avg Annual Totals and Subtotals

Sum of (Account New Balances for period / Total Category New Balances for period)*Weighted Average of Offering Rates for period.

YIELDS AND COSTS REPORT

Note: Report selection **FTE** = "Yes" will adjust Federally Tax Exempt accounts' income by multiplying by 1.51515 for Federal Nominal Tax Rates of 34% or 1 / 1 - Nominal Tax Rate (if different than 34%). Accounts with **TEFRA** Account Properties will have their income adjusted according to the TEFRA adjustment setting present (see Tax Calculations).

Account Monthly Yield/Cost

Annualized Income (or Expense) / Average Balance

Avg Monthly Yield/Cost on Subtotals and Totals

Sum of Annualized Incomes (or Expenses) / Sum of Account Average Balances

Note: Sum of Account Average Balances will include any accounts that had Income or Expense during the period on the report.

APPENDIX A

Monthly Interest Spread (Excludes Loan Fees)

Average Rate on Assets – Average Rate on Liabilities

Monthly Interest Margin (Includes Loan Fees)

$$\frac{((\text{Annualized Interest Income} + \text{Annualized Loan Fees}) / \text{Average Earning Assets}) - (\text{Annualized Interest Expense} / \text{Average Earning Assets})}{10}$$

Monthly Net Interest Income/Average Assets

$$\frac{((\text{Annualized Interest Income} + \text{Annualized Loan Fees}) / \text{Average Assets}) - (\text{Annualized Interest Expense} / \text{Average Assets})}{10}$$

Quarterly Yields/Costs

Sum of Income (or Expense) for Quarter Annualized/Sum of Average Balances for that Quarter.

Annual Yields/Costs

Income (or Expense) figures for entire year/Sum of Average Balances divided by 12.

BOARD RATIO REPORT

Profitability

Return on Average Assets

$$\frac{(((\text{Annualized Interest Income (including Loan Fees)} - \text{Annualized Interest Expense}) + (\text{Annualized Other Income} - \text{Annualized Operating Expense}) - \text{Annualized Total Taxes})) / \text{Average Assets}}{10}$$

Return on Average Equity

$$\frac{(((\text{Annualized Interest Income} - \text{Annualized Interest Expense}) + (\text{Annualized Other Income} - \text{Annualized Operating Expense}) - (\text{Annualized Total Taxes})) / (\text{Average Equity} - \text{Average Capital Notes}))}{10}$$

Net Interest Margin/Average Earning Asset

$$\frac{(((\text{Annualized Interest Income} + \text{Annualized Loan Fees}) - (\text{Annualized Interest Expense})) / \text{Average Earning Assets})}{10}$$

Provision for Loan Loss /Average Assets

$$(\text{Annualized Provision for Loan Losses} / \text{Average Assets}) / 10$$

Net Overhead / Average Assets

$$(\text{Annualized Operating Expense (excluding Loan Loss Provision)} - \text{Annualized Other Income (excluding Loan Fees)} / \text{Average Assets}) / 10$$

Taxes / Average Assets

$$(\text{Annualized Federal and State Taxes} / \text{Average Assets}) / 10$$

Asset Management

Earn Assets / Average Assets

$$(\text{Average Earning Assets} / \text{Average Assets}) * 100$$

Interest Income / Average Earning Assets

$$(\text{Annualized Interest Income} / \text{Average Earning Assets}) / 10$$

APPENDIX A

Break Even Yield

$$\frac{(((\text{Annualized Operating Expense} + \text{Annualized Interest Expense}) - (\text{Annualized Other Income} - \text{Annualized Loan Fees})) / \text{Average Earning Assets})}{10}$$

Liability Management

Interest Expense / Average Earning Assets

$$(\text{Annualized Interest Expense} / \text{Average Earning Assets}) * 100$$

Demand Deposits / Average Assets

$$(\text{Average Demand Deposits} / \text{Average Assets}) * 100$$

Core Deposits / Average Assets

$$((\text{Average Total Deposits} - \text{Average Large CDs}) / \text{Average Assets}) * 100$$

Non-Core Funding Dependence

$$((\text{CDs} > \$250K + \text{Fed Funds Purchased} + \text{Borrowed Funds} - \text{Fed Funds Sold}) / \text{Average Assets}) * 100$$

Time Deposits / Average Assets

$$(\text{Average Time Deposits} / \text{Average Assets}) * 100$$

Free Funds Ratio

$$((\text{Average Earning Assets} - \text{Average Paying Liabilities}) / \text{Average Earning Assets}) * 100$$

Note: Report selection FTE = "Yes" will adjust Federally Tax Exempt accounts' annualized income by multiplying by 1.51515 for Federal Nominal Tax Rates of 34% or 1 / 1 - Nominal Tax Rate (if different than 34%).

OPERATING EFFICIENCY

Non-Interest Income / Non-Interest Expense

$$((\text{Other Income} - \text{Loan Fees}) / (\text{Operating Expense} - \text{Loan Loss Provision})) * 100$$

Non-Interest Expense / Average Assets

$$(\text{Annualized (Operating Expense} - \text{Loan Loss Provision)}) / \text{Average Assets}) / 10$$

Non-Interest Income / Average Assets

$$(\text{Annualized (Other Income} - \text{Loan Fees}) / \text{Average Assets}) / 10$$

Efficiency Ratio

$$(\text{Annualized Operating Expense} - \text{Annualized Extraordinary Expense} - \text{Annualized Loan Loss Provision}) / ((\text{Interest Income with (Federal Tax Exempt items} / \text{Annualized Federal Tax Rate})) - \text{Interest Expense, annualized} + \text{Non-Interest Income} - \text{Extraordinary Income}) * 100$$

LIQUIDITY

Cash & Due / Average Assets

$$(\text{Average Cash \& Due} / \text{Average Assets}) * 100$$

Fed Funds Sold / Average Assets

$$(\text{Average Fed Funds Sold} / \text{Average Assets}) * 100$$

Loans / Average Deposits

$$(\text{Average Loans} / \text{Average Deposits}) * 100$$

APPENDIX A

Liquidity Ratio

$$\frac{(\text{EOM Cash \& Due} + \text{EOM Fed Funds Sold} + \text{EOM Total Securities} - \text{EOM Pledged Securities})}{(\text{EOM Total Liabilities} - \text{EOM Other Liabilities} - \text{EOM Pledged Securities})} * 100$$

LOAN QUALITY

Loan Loss Reserve / Average Loans

$$((\text{Absolute (Average Loan Loss Reserve)}) / \text{Average Loans}) * 100$$

Provision for Loan Losses / Average Loans

Monthly:
$$\frac{(\text{Monthly Provision for Loan Losses Annualized})}{\text{Monthly Average Loans}} / 10 \text{ or}$$

YTD:
$$\frac{(\text{Sum of Annualized Monthly Provision} / \text{Sum of Monthly Average Loans})}{10}$$

CAPITAL ADEQUACY

EOM Equity / EOM Tier 1 Capital

$$(\text{EOM Equity} / (\text{EOM Equity} - \text{Unrl Gain/Loss} - \text{Goodwill})) * 100$$

EOM Equity / EOM Assets

$$(\text{EOM Equity} / \text{EOM Assets}) * 100$$

Equity Growth

$$((\text{End Equity} - \text{End Capital Notes}) / (\text{Beginning Equity} - \text{Beginning Capital Notes}) - 1) * 100$$

GROWTH

Asset Growth

$$((\text{Ending Assets} / \text{Beginning Assets}) - 1) * 100$$

Loan Growth

$$((\text{Ending Loans} / \text{Beginning Loans}) - 1) * 100$$

Demand Deposit Growth

$$((\text{Ending Demand Deposits} / \text{Beginning Demand Deposits}) - 1) * 100$$

Volatile Liability Growth

$$((\text{Ending Large CDs} + \text{Fed Funds Purchased} + \text{Borrowed Funds}) / \text{Beginning Large CDs} + \text{Fed Funds Purchased} + \text{Borrowed Funds}) - 1) * 100$$

Time Deposit Growth

$$((\text{Ending Time Deposits} / \text{Beginning Time Deposits}) - 1) * 100$$

RATE-VOLUME-CALENDAR VARIANCE ANALYSIS

The Rate-Volume-Calendar variance attributes the income or expense variance to a combination of balance, rate and accrual method differences. By holding two variables constant, the variance due to the third variable can be calculated.

Rate-Volume-Calendar Calculations

Income Difference Due to Volume

$$((\text{Actual Average Balance} - \text{Budget Average Balance}) * \text{Budget Income}) / \text{Budget Average Balance}$$

APPENDIX A

Income Difference Due to Yields

$((\text{Yield Variance} * \text{Budget Balance}) * \text{Days in Month}) / \text{Days in Year} * 10$

Income Difference Due to Calendar

$(\text{Actual Calendar Days in Month} - \text{Budget Calendar Days in Month}) * (\text{Budget Income} / \text{Budget Calendar Days in Month})$

Mix

$\text{Difference in Income} / \text{Expense} - (\text{Variance Due to Balance} + \text{Yield} + \text{Calendar})$

Note: The Rate/Volume/Calendar report does not contain any category totals. There is a difference of opinion on the theories by which such totals should be calculated:

Cost accounting method: Category results would be calculated by using the weighted average yields on the entire category and computing each component of the variance at the category level. This method will produce different dollar and percentage variances for volume and rate than just adding the dollar variances from the detailed calculations. That difference is reflected in the mix variance and is due to the different distribution between the categories in the budget vs. actual results.

Addition method: Category results are determined by adding the dollar variances for each member of the category. This method is easier to verify, but ignores the impact of the different composition of the category between budget and actual.

SIMPLE VARIANCE ANALYSIS

Income or Expense Difference Due to Bal

$((\text{Actual Average Balance} - \text{Budget Average Balance}) * \text{Budget Income or Expense}) / \text{Budget Average Balance}$

Income or Expense Difference Due to Yield

$((\text{Yield Variance} * \text{Budget Balance}) * \text{Days in Month}) / \text{Days in Year}$

Income or Expense Difference Due to Mix

$\text{Difference in Income or Expense} - (\text{Variance Due to Balance} + \text{Yield})$

Totals and Subtotals

Balances & Income = Sum of individual account data

Yield = $\text{Sum of Inc (Exp)} / \text{Sum of individual account average balances}$

FUNDING AND PROFITABILITY ANALYSIS

Items in the detail are sorted by Repricing Period lowest to highest then by Rate lowest to highest

Three elements:

- 1) Share of free funding = Demand. Distributed by % of Assets
- 2) Capital allocation. First by RBC weighting, then by excess.
- 3) W/Individual Accounts setting. Order of accounts by duration or average life. Shortest liabilities used to fund shortest assets. (Waterfall funding analysis) Can help to identify mismatches in assets vs. funding sources.

Change the Default Settings:

Matching Method - Switch to Funds Pool: All accounts use same cost of funds (income statement ratio)

APPENDIX A

Overhead Adjusted. Uses Account Wizard rates or calculated rates. Switch set to:

Yes = Use Actual Overhead (Actual OH) / Calculated Overhead (Calc OH). Calculate Overhead by multiplying all balances by their individual Cost Factors and adding them together. Adjustment applied proportionately. Actual Overhead = Total Non Interest Expenses excluding Provision for Loan Loss + Total Trust Income

No = Overhead rates from Account Wizard applied.

Repricing period = Duration or Average life (properties setting) Duration = duration from Account Market Value Duration report. Average Life from Weighted AvgMat in Maturity Tab

Reprice Period Non-Maturing with Decay Rate = Decay Rate / 2 + .5

Reprice Period Non-Interest Bearing without Decay Rate = 480

Volume = Average Balances for 12 months beginning in first projected month added together and divided by 12

Rate = Yields for the first 12 projected months added together and divided by 12

Net Overhead = Cost from Wizard setting

Net Adj. Overhead = Actual OH / Calc OH * (Cost Factor / 100 * Balance * 1000) / Balance / 10

If the item is a Loan account with Loan Fees, the Adjusted Overhead is

(Actual OH / Calc OH * (Cost Factor / 100 * Balance * 1000) - (Tot Ln Fees * New Lns / Tot New Loans)) / Balance / 10

Ln Loss/Ser Chg = For Loan Accts Total Provision for Loan Loss for 12 months beginning in the first projected month added together and divided by Total Loan Volume and divided by 10

= For Demand Deposits Total Service Charges for 12 months beginning in the first projected month added together and divided by Demand Deposit volume and divided by 10

Net Rate = for assets = Rate - Net Overhead - Ln Loss

= for liabilities = Rate + Net Overhead - Ser Charge

Totals and differences = Demand Deposits are used to cover the cost of Cash & Due accounts then distributed over the other asset accounts.

Capital is used to cover the Risk Based Capital requirements of all assets and excess capital is distributed to all the assets after their capital requirements are met.

Product Profitability (pretax) = Product Profitability = Net Rate of Asset - Net Rate of Liabilities covering that asset

Return on Equity = Return on Equity = Asset Volume multiplied by Product Profitability divided by Total capital covering that asset

Cost per \$1 of Revenue = Net Rate of Liabilities + Asset Net Overhead + Asset Ln Loss added together and divided by the Asset Rate

Summary Page

Items in the summary are sorted by Return on Equity highest to lowest

APPENDIX A

	Balance	Gross Yield	Costs	Product Profit (pretax)	Cost per \$1 of Revenue	Return on Equity	% of Earning Assets	Value Index
OD Protection	19	18.00%	2.69%	15.31%	\$0.15	110.00%	.01%	.02
MBS & CMO's	1,565	5.00%	2.06%	2.94%	\$0.41	39.11%	1.22%	.48
Res RE Floating	345	7.09%	4.09%	3.00%	\$0.58	30.24%	.27%	.08
FHLB Stock	682	6.00%	3.86%	2.14%	\$0.64	28.46%	.53%	.15
US Agencies	9,876	4.24%	2.62%	1.62%	\$0.62	21.54%	7.71%	1.66
Res RE Fixed	6,868	6.42%	4.69%	1.72%	\$0.73	17.37%	5.36%	.93
Commercial Loans-Var	24,309	6.54%	4.42%	2.12%	\$0.68	15.25%	18.97%	2.89
Commercial Real Estate	10,094	6.45%	4.39%	2.05%	\$0.68	14.74%	7.88%	1.16
Commercial Loans-Fixed	31,961	6.43%	4.39%	2.04%	\$0.68	14.68%	24.95%	3.66
Municipals	16,531	4.32%	3.73%	.59%	\$0.86	7.79%	12.90%	1.00
US Agency Step Ups	10,143	3.82%	3.24%	.58%	\$0.85	7.73%	7.92%	.61
Installment Fixed	657	6.95%	6.02%	.93%	\$0.87	6.68%	.51%	.03
Home Equity Variable	9,223	6.34%	6.17%	.17%	\$0.97	1.24%	7.20%	.09
Due From Banks	2,436	.00%	2.48%	-2.48%	\$0.00	.00%	1.90%	.00
Int-bearing Due From Ba	47	2.78%	2.48%	.30%	\$0.89	.00%	.04%	.00
Cash	599	.00%	2.48%	-2.48%	\$0.00	.00%	.47%	.00
Fed Funds Sold	5,801	2.66%	3.47%	-.81%	\$1.30	-10.76%	4.53%	-.49


LIQUIDITY ANALYSIS

Total Liquid Assets = EOM Cash & Due + EOM Fed Funds Sold + EOM Total Securities – EOM Pledged Securities

Total Deposits & Borrowed = EOM Total Deposits + EOM Fed Funds Purchased + EOM Borrowed Funds – EOM Pledged Securities

Liquidity Ratio = Total Liquid Assets / Total Deposits & Borrowed * 10

APPENDIX B**MONTHLY UPDATE PROCEDURE**

1. Make sure that the latest extract files from your data processor have been copied to the same folder where your plan (.mdb) files are located after you have made a back up. This path is _____.
2. Perform the download:
 - A. Open **Compass** by clicking on the **Compass** icon on your desktop.
 - B. Select your plan path from the **Select a Plan File** window and click **Open**. Your plan is called _____.
 - C. Click the **DataBridge** button. 
 - D. Verify that the Month and Year are correct.
 - E. Click on the **Perform Download** button.
 - F. Print a copy of the **DataBridgeDownloadErrors.log** (Select **File, Print** from the left hand corner of the small box, not from top of your screen). "Total balance of maturity data is not equal to the last EOM GL Balance for {Account}" and "{Account} has an EOM weighted yield of (rate) and an Average Monthly GL yield of (rate)" error messages will be corrected later.

```

Sample DataBridgeDownloadErrors.log - Notepad
File Edit Format View Help
Consolidated Plan has the following errors:

GL Code '1642' in Line # 62 in the GL Extract File BS.dat is not in the Balance Sheet Correlation Table ;
GL Code '1642' in Line # 62 in the GL Extract File BS.dat is not in the Balance Sheet Correlation Table ;

Loan Code '52 3 46 0.000000 0.000 0' in Line # 785 in the Loan Maturity File ML.dat is not in the Loan
CD Code '55 365 2 A' in Line # 189 in the Deposit Maturity File CD.dat is not in the Deposit Maturity Co

on the following accounts, the total balance of maturity data is not equal to the last EOM GL Balance:

CD's > $250K 7 - 12 Mo
CD's > $250K 25 - 36 Mo
IRA's 18 Mo Var

on the following accounts, the EOM weighted yield differs from the Average Monthly GL yield by more than 1

Account | EOM Weighted Yield | Avg Monthly GL Yield | EOM - Avg
-----|-----|-----|-----
Corporate Bonds | 1.67 | 8.60 | -6.92
CD's < $250K over 36 Mo | 2.08 | 1.91 | 0.18
Investment CDAR's | 0.17 | 0.00 | 0.17
CD's > $250K 25 - 36 Mo | 1.49 | 1.36 | 0.13
CD's < $250K 25 - 36 Mo | 1.39 | 1.27 | 0.12
Residential R/E - Adj w/CL | 6.50 | 6.40 | 0.10

```

- G. Make any additions to the Correlation Tables needed to correct the "Code '{xxxxxx}' in Line # {nnnn} in the extract file {file name} is not in the {table name} Correlation Table and cannot be downloaded". Please refer to the **Monthly DataBridge Operation** in the **DataBridge**

APPENDIX B**For “Zero Rate” errors:**

To clear the red flag, manually enter the rate. There are four types of rates that could be affected: the offering rate in the Projections tab, the scheduled maturity xrate rate in the Maturity Tab, and the new repricing rate as well as the scheduled repricing xrate in the Repricing Tab.

For “Scheduled Maturities do not match the last EOM Balance” errors:

Projections	Budget	Maturity	Variance	Callable	Fed Funds	Notes
Last EOM Balance	598	Total Scheduled Maturities	578	Balance Difference	20	
EOM Yield	1.67	XRate	1.67	Yield Difference	0.00	

	Scheduled Maturities	Scheduled Maturities XRate	Adj. Scheduled Maturities	Adj. Scheduled Mats XRate	Scheduled PrePmts	Scheduled PrePmts XRate	New Maturities	Matu
2013	[User Edit]	[User Edit]			No Model			
Sep								
Oct	130	1.59	130	1.59	0	0.00	0	
Nov	0	0.00	0	0.00	0	0.00	0	
Dec	51	3.12	51	3.12	0	0.00	0	
2014 Jan	0	0.00	0	0.00	0	0.00	0	
Feb	104	1.25	104	1.25	0	0.00	0	
Mar	0	0.00	0	0.00	0	0.00	0	
Apr	103	1.70	103	1.70	0	0.00	0	
May	0	0.00	0	0.00	0	0.00	0	
Jun	104	1.44	104	1.44	0	0.00	0	
Jul	0	0.00	0	0.00	0	0.00	0	
Aug	0	0.00	0	0.00	0	0.00	0	
Sep	0	0.00	0	0.00	0	0.00	0	
Oct	0	0.00	0	0.00	0	0.00	0	
Nov	86	1.69	86	1.69	0	0.00	0	
Dec	0	0.00	0	0.00	0	0.00	0	

Click the **Maturity** Tab.

Change the **last number in the Scheduled Maturities** column to eliminate a small difference. If differences are more than \$5M or 5%, call Plansmith.

Compass automatically corrects **Red Flags** for this issue, if you have checked **Fix Small Maturity Imbalance** in the DataBridge Settings. The default is to adjust for a difference of 2% or less for accounts whose EOM balance exceeds \$250M and 5% or less for accounts with balances less than or equal to \$250M. You can also define a custom **Small Imbalance Threshold** in **Utilities, DataBridge Settings**.

For “Repricing Balances” errors:

APPENDIX B

This means that the total for **Scheduled Repricings** in the Repricing Tab (*within the stated Account Wizard repricing period*) does not match back to the last EOM balance. The **Fix Small Maturity Imbalance** function may automatically plug this difference, if checked.

For “Negative New Balances” errors:

This is an issue with the forecasted balance sheet. This type of an account needs to have its balance reductions reflected **ONLY** in the form of maturities. To have the balances go down faster than the scheduled payments, adjust the scheduled maturities in the Maturity Tab or add a prepayment model.

Or, you can automatically plug the **Negative New Balances** by selecting **Don’t Allow Negative New Bals in Maturing Accounts** from the Utilities, Options, Chart of Accounts Tab.

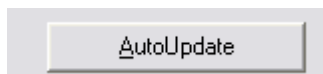
For any other type of **Red Flag**, please contact Plansmith Support Services at **1.800.323.3281**.

Repeat this process for each account with a **Red Flag** until all issues have been resolved.

4. Update the interest rate forecast:



- A. Click the **Rate Forecast** button.



- B. Click **Auto Update**.

- C. Follow the prompts to update your Interest Rate Forecast

- D. Upon completion you will see **Rates are Current** in the upper left hand corner.

5. Compute the Plan and Compute Rate Shock.



- A. Click the **Compute the Plan** button.

- B. Click the **Compute** button. After the compute is complete, the Compute Summary will appear on the screen.



- C. Click the **Compute a Parallel Rate Shock** button. Make sure that you choose the appropriate shock time horizon and shock increments and whether you want a “ramped” rate shock. The shock time horizon and shock increments that my bank has chosen are:

_____.



- D. Click the **Compute a Non Parallel Rate Shock** button. Click **Yes** to update default yield scenarios and projection formulas. Make sure that you choose the same shock time

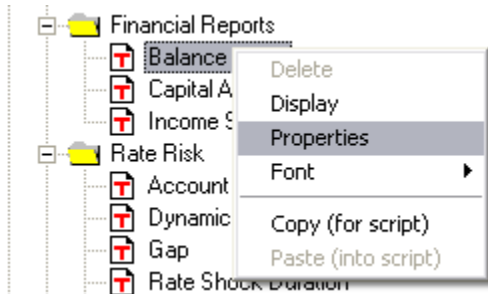
APPENDIX B

horizon as your **Parallel Rate Shock** Compute. The shock time horizon my bank has chosen are: _____.

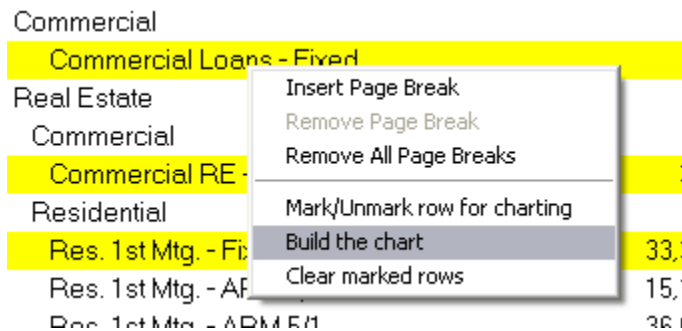
6. At this point, you are ready to print history, variance, gap and rate shock reports.



- a. Click the **Reports** button.
- b. Double click on the report you wish to view.
- c. If you need to change any report properties (like dates covered, level of detail, etc.), right click while the mouse pointer is on the report name on the **Directory** list on the left side of the screen and select Properties.



- d. Click on the picture of the **Printer** to print the report. If you want to graph any line item or total, double-click on the description of the line item. If you want to graph any line item or total, double-click on the description of the line item. To create Comparative Graphs, right click on the line items you wish to compare and selecting **Mark/Unmark row for charting**. After you have selected your items, they will appear shaded. Next, right click and select **Build the chart**.



7. Adjusting the Forecast: The following steps should be performed by someone who is familiar with the bank's projected growth plans and current loan and deposit rates:
- A. Reports showing Balance Sheet and Income Statements should be reviewed for possible revisions to projected volumes. Revise projections as needed.

APPENDIX B

- B. Make revisions by clicking **Account Projections** button.
- C. Select major accounts and adjust projected growth, if necessary.
- D. The Offering Rates Report should be reviewed to verify that prices for next month are close to the bank's current rates for new loans and deposits.
- E. Corrections are made by selecting the account from your **Chart of Accounts** list. Click on the **Modeled** or **Quick** button in the Offering Rate column and make your adjustments.

Projections		Budget	Maturity	Repricing	Variance	Fed Funds
		EOM Balance	New Balance	Offering Rate	Total Maturities	Total Maturities Xrate Interest
2014	Quick		→	Modeled		
Feb		77,704				EOM Yield: 267,180
Mar		77,027				4.52 274,401
Apr		77,220	1,155	4.50	962	4.57 290,779

If the box says **Manual**, you will need to enter the rate in each month of your projections. Better yet, give us a call and we'll help you build a model.

- F. Finish making necessary changes in the **Account Projections**.
- G. When all changes are complete, repeat Step 5 and 6.
Exit and **Save** your changes when complete.

APPENDIX B1

MONTHLY UPDATE PROCEDURE FOR CONSOLIDATIONS

1. Make sure that the latest extract files from your data processor have been copied to the same folder where your plan (.mdb) files are located after you have made a back up. This path is _____.

2. *If you have an SBU that is part of the consolidation, you must update the SBU first.*

Perform the download:

- A. Open **Compass** by clicking on the **Compass** icon on your desktop.
- B. Select the **Total Consolidated** plan path from the **Select a Plan File** window and click **Open**.
Your plan is called _____.



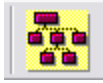
- C. Click the **DataBridge** button.
- D. Verify that the Month and Year are correct.
- E. Click on the **Perform Download** button. The DataBridge will load information to each of the subsidiary plans automatically.

NOTE: If at any point in the **DataBridge** process you wish to close Compass and start over, Compass will automatically save your work. You may reopen your Total Bank plan and rerun the **DataBridge** as many times as you wish.

- F. Print a copy of the DataBridgeDownloadErrors.log (Select **File, Print** from the left hand corner of the small box, not from top of your screen). "Total balance of maturity data is not equal to the last EOM GL Balance for {Account}" and "{Account} has an EOM weighted yield of (rate) and an Average Monthly GL yield of (rate)" error messages will be corrected later.

```
DataBridgeDownloadErrors.log - Notepad
File Edit Format View Help
I:\Sample Consolidation\Bank & Trust 1.mdb has the following errors:
GL Code '1110501' in Line # 65 in the GL Extract File planglbal.txt is not in the Balance :
on the following accounts, the total balance of maturity data is not equal to the last EOM (
CMO's - MBS
Municipals
#####
I:\Sample Consolidation\Mortgage Company.mdb has the following errors:
on the following accounts, the EOM weighted yield differs from the Average Monthly GL yield
Account | EOM weighted Yield | Avg Monthly GL Yield | EOM - Avg
-----|-----|-----|-----
Commercial Loans-Fix | 8.50 | 8.81 | -0.30
```

APPENDIX B1



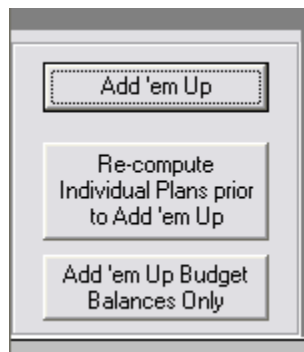
NOTE: Each separate unit has its own set of DataBridge errors. To correct the error for a particular unit, you must open that unit by selecting **Consolidation** and enter its DataBridge screen.

- G. Make any additions to the Correlation Tables needed to correct the “Code '{xxxxxx}' in Line # {nnnn} in the extract file {file name} is not in the {table name} Correlation Table and cannot be downloaded Please refer to the **Monthly DataBridge Operation** in the **DataBridge** section of the manual for help in making these corrections. Any other errors should be referred to Plansmith for explanation.
 - H. If you make any changes to the Correlation Tables, repeat steps 2D and E from the **Total Consolidated** plan. You may also re-run the DataBridge on the individual unit. ***Make sure the month and year are correct!!!***
3. Data Validation: After all the error codes have been resolved and the DataBridge re-run, open each subsidiary plan and validate the data.

- A. Select **Update Financial**



- B. Verify the month next to **Update for:** corresponding to the month that you just downloaded.
- C. For the each subsidiary plan, enter *Year to Date* Earnings (if applicable) in the EOM and Average balance columns on the Current Earnings line. Validate the financial data for the plan by reviewing the Balance Sheet and Net Income totals at the bottom of the screen. If the data is correct, select **Save Data** and follow the prompts to **Compute the Plan**.
- D. After validating the data on each subsidiary plan, return to the consolidation screen. Select **Add 'em Up**.



This will add up the data from all the subsidiary plans. When finished, select **Update Financial**. You will now validate your general ledger data for the **Total Bank**.

APPENDIX B1

- E. After **Add 'em Up**, if the **Difference** numbers at the bottom of the **Update Financial** screen are more than 5, ask Plansmith for assistance. Otherwise, the **Difference** is most likely due to rounding and you will adjust **Other Liabilities** to eliminate it (increase other liabilities if the difference is positive, decrease other liabilities if the difference is negative). **Remember, ALL adjustments need to be made in a subsidiary plan.**
- F. Verify that the **Net Income** shown at the bottom of the screen is equal to the monthly pretax income from your trial balance or other GL system report. If not, locate the difference by reviewing sub-totals or line items. Differences of up to \$10 may result from rounding and can be adjusted in Miscellaneous Expenses. **Remember, ALL adjustments need to be made in a subsidiary plan.**
- G. **Compute the Plan.** If you have made any adjustments to your general ledger data in a subsidiary plan, you will need to **Compute the Plan** again, before clearing any **Red Flags**.
- H. **Clearing Red Flags.** You now need to make sure each subsidiary plan does not have any red flags. To open a subsidiary plan, please navigate to the branch through the **Consolidation** screen.



Once you are in the subsidiary plan, click the **Account Projections** button.



- I. **Correct any Red Flags.** Select the first account that has a red flag. Click the **Diagnostics** button (bottom center of data screen) for guidance:

<u>R</u> estore Data	<u>D</u> iagnostics	<u>P</u> rint Tab	
Interest ▼	2014	2015	2016
As loaded	515,831	450,886	559,653
Revised	515,831	450,886	559,653
Change	0	0	0

For "Zero Rate errors:

To clear the red flag, manually enter the rate. There are four types of rates that could be affected: the offering rate in the Projections tab, the scheduled maturity xrate rate in the Maturity Tab, and the new repricing rate as well as the scheduled repricing xrate in the Repricing Tab.

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For “Scheduled Maturities do not match the last EOM Balance” errors:

Projections		Budget	Maturity	Variance	Callable	Fed Funds	Notes
Last EOM Balance	598	Total Scheduled Maturities	578	Balance Difference	20		
EOM Yield	1.67	XRate	1.67	Yield Difference	0.00		

	Scheduled Maturities	Scheduled Maturities XRate	Adj. Scheduled Maturities	Adj. Scheduled Maturities XRate	Scheduled PrePmts	Scheduled PrePmts XRate	New Maturities
2013	[User Edit]	[User Edit]			No Model		
Sep							
Oct	130	1.59	130	1.59	0	0.00	0
Nov	0	0.00	0	0.00	0	0.00	0
Dec	51	3.12	51	3.12	0	0.00	0
2014 Jan	0	0.00	0	0.00	0	0.00	0
Feb	104	1.25	104	1.25	0	0.00	0
Mar	0	0.00	0	0.00	0	0.00	0
Apr	103	1.70	103	1.70	0	0.00	0
May	0	0.00	0	0.00	0	0.00	0
Jun	104	1.44	104	1.44	0	0.00	0
Jul	0	0.00	0	0.00	0	0.00	0
Aug	0	0.00	0	0.00	0	0.00	0
Sep	0	0.00	0	0.00	0	0.00	0
Oct	0	0.00	0	0.00	0	0.00	0
Nov	86	1.69	86	1.69	0	0.00	0
Dec	0	0.00	0	0.00	0	0.00	0

Click the **Maturity** Tab.

Change the **last number in the Scheduled Maturities** column to eliminate a small difference. If differences are more than \$5M or 5%, call Plasmith.

Compass automatically corrects **Red Flags** for this issue, if you have checked **Fix Small Maturity Imbalance** in the DataBridge Settings. The default is to adjust for a difference of 2% or less for accounts whose EOM balance exceeds \$250M and 5% or less for accounts with balances less than or equal to \$250M. You can also define a custom **Small Imbalance Threshold** in **Utilities, DataBridge Settings**.

For “Repricing Balances” errors:

This means that the total for repricings in the Repricing Tab (*within the stated Account Wizard repricing period*) does not match back to the last EOM balance. The **Fix Small Maturity Imbalance** function may automatically plug this difference, if checked.

For “Negative New Balances” errors:

This is an issue with the forecasted balance sheet. This type of an account needs to have its balance reductions reflected **ONLY** in the form of maturities. To have the balances go down faster than the scheduled payments, adjust the scheduled maturities in the Maturity Tab or add a prepayment model.

Or, you can automatically plug the **Negative New Balances** by selecting **Don’t Allow Negative New Bal in Maturing Accounts** from the Utilities, Options, Chart of Accounts Tab.

For any other type of **Red Flag**, please contact Plasmith Support Services at **1.800.323.3281**.

Repeat this process for each account with a **Red Flag**.

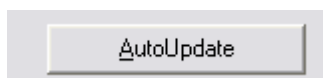
APPENDIX B1

After clearing **Red Flags** on the unit, close the plan and you will return to the consolidation screen. Open the next plan on the screen and clear its red flags. After clearing all red flags, exiting and saving each plan, you will return to the **Total Consolidated** plan.

4. Update the interest rate forecast:



- A. Click the **Rate Forecast** button.



- B. Click **Auto Update**.

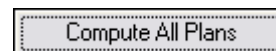
- C. Follow the prompts to update your Rate Forecast

- D. Upon completion you will see **Rates are Current** in the upper left hand corner.

5. Compute All Plans



- A. Click the Compute button. Compute All Plans.



(If you receive a ConsolidationError.log, refer to item 6) **Clear the Consolidation Error Log** under the **Consolidation** section of the manual.)



- A. Click the **Compute a Parallel Rate Shock** button. Make sure that you choose the appropriate shock time horizon and shock increments and whether you want a “ramped” rate shock. The shock time horizon and shock increments that my bank has chosen are:

_____.



- B. Click the **Compute a Non Parallel Rate Shock** button. Click **Yes** to update default yield scenarios and projection formulas. Make sure that you choose the same shock time horizon as your **Parallel Rate Shock** Compute. The shock time horizon my bank has chosen are: _____.

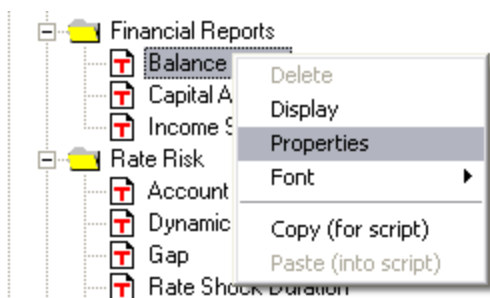
6. At this point, you are ready to print history, variance, gap and rate shock reports.



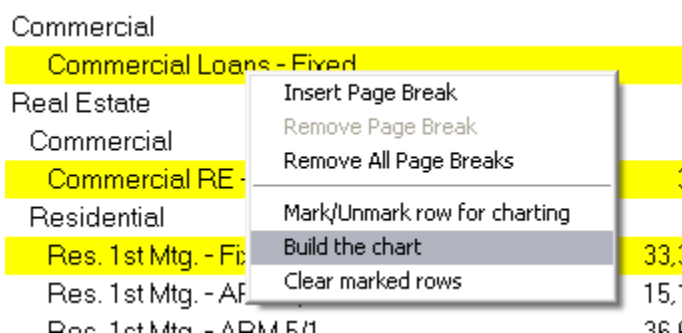
- A. Click the **Reports** button.

- B. Double click on the report you wish to view.

- C. If you need to change any report properties (like dates covered, level of detail, etc.), right click while the mouse pointer is on the report name on the **Directory** list on the left side of the screen and select Properties.

APPENDIX B1

- D. Click on the picture of the **Printer** to print the report. If you want to graph any line item or total, double-click on the description of the line item. If you want to graph any line item or total, double-click on the description of the line item. To create Comparative Graphs, right click on the line items you wish to compare and selecting **Mark/Unmark row for charting**. After you have selected your items, they will appear shaded. Next, right click and select **Build the chart**.



7. Adjusting the Forecast: The following steps should be performed by someone who is familiar with the bank's projected growth plans and current loan and deposit rates:
- Reports showing Balance Sheet and Income Statements should be reviewed for possible revisions to projected volumes. Revise projections in the individual bank.
 - To make revisions for a particular unit, you must open that branch by selecting **Consolidation** and enter its DataBridge screen.



Then click the **Account Projections** button.



- Select major accounts and adjust projected growth, if necessary.
- The Offering Rates Report should be reviewed to verify that prices for next month are close to the bank's current rates for new loans and deposits.
- Corrections are made by selecting **Account Projections** button. Click on the Account. Click on the model button in the Offering Rate column and make your adjustments.

APPENDIX B1

Projections		Budget	Maturity	Repricing	Variance	Fed Funds
		EDM Balance	New Balance	Offering Rate	Total Maturities	Total Maturities Xrate
2014	Quick		→ Modeled			Interest
Feb		77,704				EOM Yield: 267,180
Mar		77,027				4.52 274,401
Apr		77,220	1,155	4.50	962	4.57 290,779

If the box says **Manual**, you will need to enter the rate in each month of your projections. Better yet, give us a call and we'll review Offer Rate modeling with you.

- F. **Exit** and **Save** your changes to the individual plan, and open the next plan you wish to edit.
- G. When all changes are complete from Total Consolidated Plan, **Compute All Plans**. Re-**Compute Rate Shock** as well.
- H. After revisions, reports showing projected results and the revised rate shock may be printed.

APPENDIX B2**MONTHLY UPDATE PROCEDURE FOR SBU**

Highlighted topics refer to *Financial Compass* features only and are available to *Budget Compass* clients with a system upgrade.

1. Verify that the latest extract files from your data processor have been copied to the same folder where your plan (.mdb) files are located after you have made a backup. This path is _____.

2. Perform the download:

A. Open **Compass** by clicking on the **Compass** icon on your desktop.

B. Select the **Total Bank** plan from the **Select a Plan File** window and click **Open**. Your plan is called _____.



C. Click the **DataBridge** button.

D. Verify that the Month and Year are correct.

E. Click on the **Perform Download** button. The **DataBridge** will load information to each of the subsidiary plans automatically.

NOTE: If at any point in the **DataBridge** process you wish to close Compass and start over, Compass will automatically save your work. You may reopen your Total Bank plan and rerun the **DataBridge** as many times as you wish.

- F. Print a copy of the dbErrors.log error report (Select **File, Print** from the left hand corner of the small box, not from top of your screen). "Total balance of maturity data is not equal to the last EOM GL Balance for {Account}" and "{Account} has an EOM weighted yield of (rate) and an Average Monthly GL yield of (rate)" error messages will be corrected later.

```

DataBridgeDownloadErrors.log - Notepad
File Edit Format View Help
N:\Users\SBU Update Sample\Branch 01.mdb has the following errors:
GL Code '101000' in Line # 1 in the GL Extract File PLANGLA is not in the Balance Sheet Correlation Table
GL Code '101000' in Line # 1 in the GL Extract File PLANGLA is not in the Balance Sheet Correlation Table

Total balance of maturity data equals the last EOM GL Balance for all accounts.
On the following accounts, the EOM weighted yield differs from the Average Monthly GL yield by more than th
Account          | EOM Weighted Yield | Avg Monthly GL Yield | EOM - Avg
-----|-----|-----|-----
Comm Loans - Float w/FL | 4.32 | 4.20 | 0.12
#####

N:\Users\SBU Update Sample\Branch 02.mdb has the following errors:
CD Code 'C3      3M' in Line # 580 in the Deposit Maturity File PLANCD is not in the Deposit Maturity Corr
CD Code 'A9      17M' in Line # 701 in the Deposit Maturity File PLANCD is not in the Deposit Maturity Corr

```

APPENDIX B2



NOTE: Each separate branch or department has its own set of DataBridge errors. To correct the error for a particular branch, you must open that branch by selecting **Consolidation** and enter its DataBridge screen.

You may also see errors for branch codes that are in a file, but unaccounted for in the model:

Some Department/Branch Codes were encountered in the extract files that were not matched to any branches of the SBU:
N:\Users\SBU Update Sample\PLANGLA:
- 99
N:\Users\SBU Update Sample\PLANGLI:
- 99

If you see branch codes unaccounted for, contact Plansmith at **800.323.3281**.

- G. Make any additions to the Correlation Tables needed to correct the “Code '{xxxxxx}' in Line # {nnnn} in the extract file {file name} is not in the {table name} Correlation Table and cannot be downloaded.” Please refer to the **Monthly DataBridge Operation** in the **DataBridge** section of the manual for help in making these corrections. Any other errors should be referred to Plansmith for explanation.
 - H. If you make any changes to the Correlation Tables, repeat steps 2D and E from the Total Bank plan. ***Make sure the month and year are correct!!!***
3. Data Validation: After all the error codes have been resolved and the **DataBridge** re-run, open your Total Bank plan and validate the data.



- A. Select **Update Financial**
- B. Verify the month next to **Update for:** corresponds to the month that you just downloaded.
- C. For the SBU, Capital and Taxes are entered in the **Total Bank only**. Enter *Year to Date* Earnings (if applicable) in the EOM and Average balance columns on the Current Earnings line. Next, verify the **Total Capital** numbers at the bottom of the screen.
- D. If these numbers are correct, click on the Save Data button and follow the prompts to **Compute All Departments**. This will add up the data from all the subsidiary plans. When the compute is finished, select **Update Financial**. You will now validate your general ledger data for the **Total Bank**. If your Capital figures are *incorrect*, do not compute your plans. You will need to troubleshoot (refer to **Troubleshooting** in the **DataBridge** section of the manual) and determine why the figures are incorrect.
- E. If the **Difference** numbers at the bottom of the screen are more than 5, ask Plansmith for assistance. Otherwise, the **Difference** is most likely due to rounding and you will adjust **Other Liabilities** to eliminate it. (Increase other liabilities if the difference is positive; decrease other liabilities if the difference is negative). **Remember, ALL adjustments other than capital or taxes need to be made in a subsidiary plan.**

APPENDIX B2

- F. Verify that the **Net Income** shown at the bottom of the screen is equal to the monthly net income from your trial balance or other GL system report. If not, locate the difference by reviewing sub-totals or line items. Differences of up to \$10 may result from rounding and can be adjusted in Miscellaneous Expenses. **Remember, ALL adjustments other than capital or taxes need to be made in a subsidiary plan.**
- G. If you have made any adjustments to your general ledger data, you will need to **Compute All Departments** at the **Total Bank** again, before clearing any **Red Flags**.
- H. Clearing **Red Flags**. You now need to make sure each subsidiary plan does not have any red flags. To open a subsidiary plan, please navigate to the branch through the **Consolidation** screen.



Once you are in the subsidiary plan, click the **Account Projections** button.



- I. **Correct any Red Flags.** Select the first account that has a red flag. Click the **Diagnostics** button (bottom center of data screen) for guidance:

Restore Data	Diagnostics	Print Tab	
Interest ▼	2014	2015	2016
As loaded	515,831	450,886	559,653
Revised	515,831	450,886	559,653
Change	0	0	0

For “Zero Rate” errors:

To clear the red flag, manually enter the rate. There are four types of rates that could be affected: the offering rate in the Projections tab, the scheduled maturity xrate rate in the Maturity Tab, and the new repricing rate as well as the scheduled repricing xrate in the Repricing Tab.

For “Scheduled Maturities do not match the last EOM Balance” errors:

APPENDIX B2

Projections	Budget	Maturity	Variance	Callable	Fed Funds	Notes
Last EOM Balance	598	Total Scheduled Maturities	578	Balance Difference	20	
EOM Yield	1.67	XRate	1.67	Yield Difference	0.00	

	Scheduled Maturities	Scheduled Maturities XRate	Adj. Scheduled Maturities	Adj. Scheduled Mats XRate	Scheduled PrePmts	Scheduled PrePmts XRate	New Maturities	Matu
	[User Edit]	[User Edit]			No Model			
2013								
Sep								
Oct	130	1.59	130	1.59	0	0.00	0	
Nov	0	0.00	0	0.00	0	0.00	0	
Dec	51	3.12	51	3.12	0	0.00	0	
2014								
Jan	0	0.00	0	0.00	0	0.00	0	
Feb	104	1.25	104	1.25	0	0.00	0	
Mar	0	0.00	0	0.00	0	0.00	0	
Apr	103	1.70	103	1.70	0	0.00	0	
May	0	0.00	0	0.00	0	0.00	0	
Jun	104	1.44	104	1.44	0	0.00	0	
Jul	0	0.00	0	0.00	0	0.00	0	
Aug	0	0.00	0	0.00	0	0.00	0	
Sep	0	0.00	0	0.00	0	0.00	0	
Oct	0	0.00	0	0.00	0	0.00	0	
Nov	86	1.69	86	1.69	0	0.00	0	
Dec	0	0.00	0	0.00	0	0.00	0	

Click the **Maturity** Tab.

Change the **last number in the Scheduled Maturities** column to eliminate a small difference. If differences are more than \$5M or 5%, call Plansmith.

Compass automatically corrects **Red Flags** for this issue, if you have checked **Fix Small Maturity Imbalance** in the DataBridge Settings. The default is to adjust for a difference of 2% or less for accounts whose EOM balance exceeds \$250M and 5% or less for accounts with balances less than or equal to \$250M. You can also define a custom **Small Imbalance Threshold** in Utilities, DataBridge Settings.

For "Repricing Balances" errors:

This means that the total for repricings in the Repricing Tab (*within the stated Account Wizard repricing period*) does not match back to the last EOM balance. The **Fix Small Maturity Imbalance** function may automatically plug this difference, if checked.

For "Negative New Balances" errors:

This is an issue with the forecasted balance sheet. This type of an account needs to have its balance reductions reflected **ONLY** in the form of maturities. To have the balances go down faster than the scheduled payments, adjust the scheduled maturities in the Maturity Tab or add a prepayment model.

Or, you can automatically plug the **Negative New Balances** by selecting **Don't Allow Negative New Bals in Maturing Accounts** from the Utilities, Options, Chart of Accounts Tab.

For any other type of **Red Flag**, please contact Plansmith Support Services at **1.800.323.3281**.

APPENDIX B2

Repeat this process for each account with a **Red Flag**.

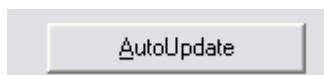
After clearing **Red Flags** on the branch/department, close the plan and you will return to the consolidation screen. Open the next plan on the screen and clear its red flags. After clearing all red flags, exiting and saving each plan, you will return to the **Total Bank** plan.

4. Update the interest rate forecast:

A. Click the **Rate Forecast** button.



B. Click **Auto Update**.



C. Follow the prompts to update your Rate Forecast

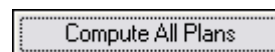
D. Upon completion you will see **Rates are Current** in the upper left hand corner.

5. Compute All Departments.

A. Click the Compute button.



Compute All Plans.



B. Click the **Compute a Parallel Rate Shock** button.



Make sure that you choose the appropriate shock time horizon and shock increments and whether you want a “ramped” rate shock. The shock time horizon and shock increments that my bank has chosen are:

C. Click the **Compute a Non Parallel Rate Shock** button.



Click **Yes** to update default yield scenarios and projection formulas. Make sure that you choose the same shock time horizon as your **Parallel Rate Shock** Compute. The shock time horizon my bank has chosen are:

6. At this point, you are ready to print history, variance, gap and rate shock reports.

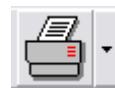
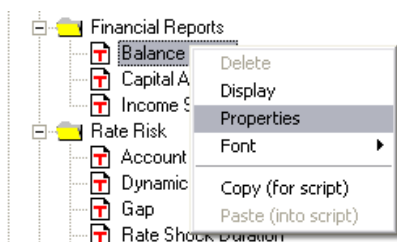
A. Click the **Reports** button.



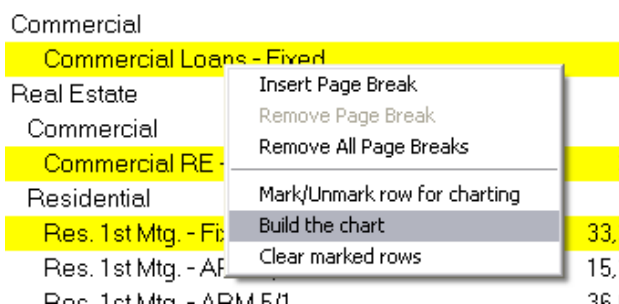
B. Double click on the report you wish to view.


C. If you need to change any report properties (like dates covered, level of detail, etc.), right click while the mouse pointer is on the report name on the **Directory** list on the left side of the screen and select Properties.

APPENDIX B2



- D. Click on the picture of the **Printer** to print the report. If you want to graph any line item or total, double-click on the description of the line item. If you want to graph any line item or total, double-click on the description of the line item. To create Comparative Graphs, right click on the line items you wish to compare and selecting **Mark/Unmark row for charting**. After you have selected your items, they will appear shaded. Next, right click and select **Build the chart**.



7. Adjusting the Forecast: The following steps should be performed by someone who is familiar with the bank's projected growth plans and current loan and deposit rates:
 - A. Reports showing Balance Sheet and Income Statements should be reviewed for possible revisions to projected volumes. Revise projections in the individual branch or department OR from the Total Bank **Dept View** tabs (refer to item **SBU-Forecasting using the Departmental View Tab** under the **Consolidation-The SBU Planning Model** section of the manual).
 - B. Make revisions by clicking **Account Projections** button. 
 - C. Select major accounts and adjust projected growth, if necessary.
 - D. The Offering Rates Report should be reviewed to verify that prices for next month are close to the bank's current rates for new loans and deposits.

APPENDIX B2

- E. Revisions are made by selecting **Account Projections** button. Click on the account. Click on the model button in the Offering Rate column and make your adjustments.

Projections		Budget	Maturity	Repricing	Variance	Fed Funds	
		EOM Balance	New Balance	Offering Rate	Total Maturities	Total Maturities Xrate	Interest
2014	<div>Quick</div>		<div></div>	<div>Modeled</div>			
Feb		77,704				EOM Yield:	267,180
Mar		77,027				4.52	274,401
Apr		77,220	1,155	4.50	962	4.57	290,779

If the box says **Manual**, you will need to enter the rate in each month of your projections. Better yet, give us a call and we'll review Offer Rate modeling with you.

- F. **Exit** and **Save** your changes to the individual plan, and open the next plan your wish to edit.
- G. When all changes are complete, **Compute All Departments** from Total Bank Plan. Re-**Compute Rate Shock** as well.
- H. After revisions, reports showing projected results and the revised rate shock may be printed.

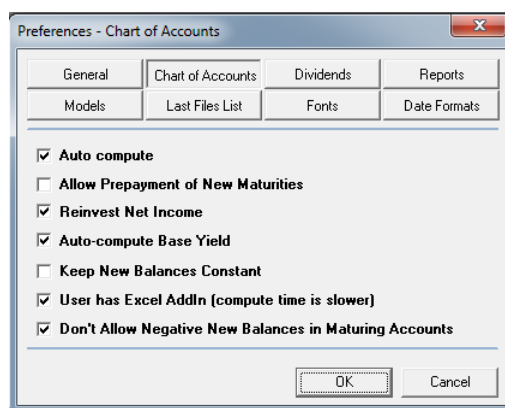
APPENDIX C

EXCEL ADD-INS

Excel Add-Ins are programs that add special commands and features to Microsoft Excel. The Excel Add-In for Compass provides a way to access a Compass plan data directly in an Excel spreadsheet to create custom reports and charts. Plansmith provides Excel Add-In clients with the Compass.xla program file. This enables you to access your plan's *.mdb database files by referencing a series of functions codes.

Before You Begin

The box for **User has Excel Add-In** in Utilities, Options, Chart of Accounts must be checked in order to store the necessary calculations needed to use the Excel Add-In. This is the default setting delivered with all new installations.



Saving Add-Ins on Your Computer

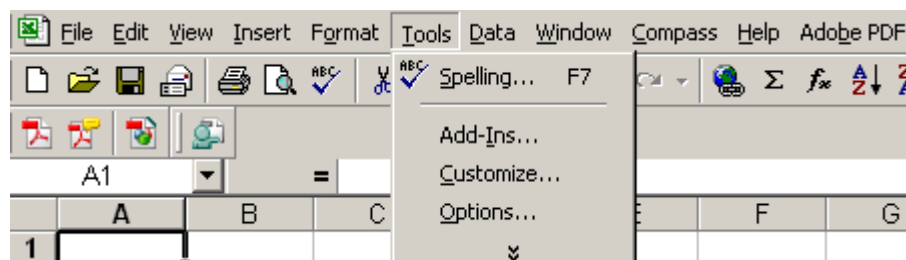
The next step is to save the Add-In to your computer. Typically you will save it in C:/Program Files or Program Files (x86)/Compass, but your network administrator may designate an alternate location and Vista users may be directed to save it to the Add-In folder.

Loading the Add-In into Excel

After saving the Add-In to your computer, you must load it into Excel. The loading instructions that follow in Step A (for Excel 2000-2006 users) and Step B (for Excel 2007 users) assume that the Add-In is saved in C:/Program Files/Compass. If your pc security level (Vista) does not recognize the Excel Add-In, you may need to perform Step C. After the Add-In has been loaded and before using it for the first time, please exit Excel and save to complete the loading function.

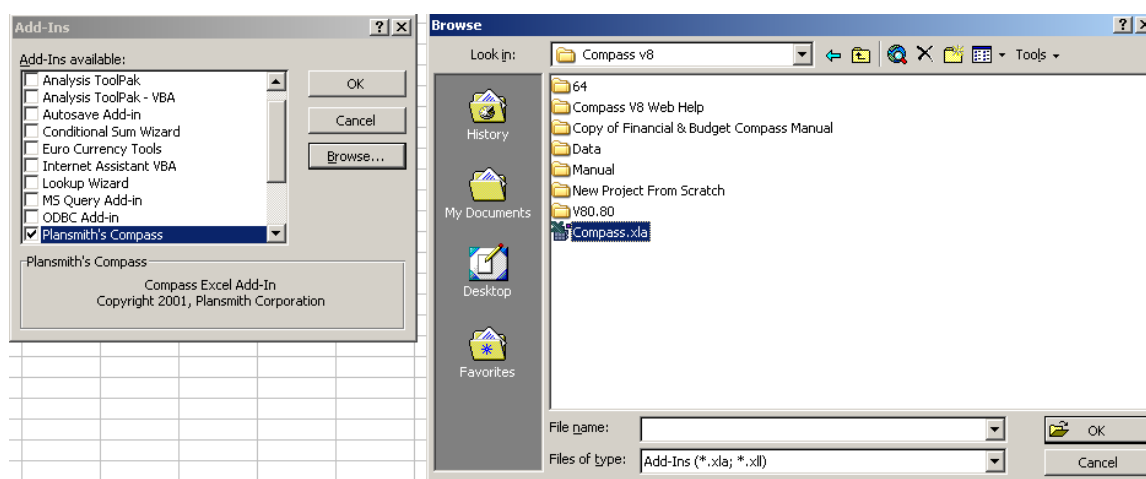
A. To load the Add-In to Excel 2000-2006

1. Choose **Tools**, then **Add-Ins**.

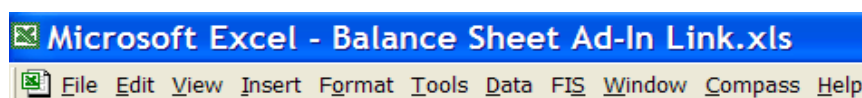


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2. Select **Browse** then point to the Compass.xla file. Click OK. Excel will install the Plansmith's Compass Add-In and include it in the list in the Add-Ins menu.



3. After loading the **Excel Add-In for Compass**, your Excel main menu will contain Compass in the Excel standard menu bar.



B. To load the Add-In to Excel 2007

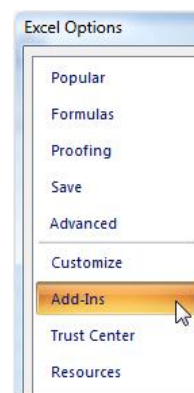
1. Click the **Microsoft Office Button**.



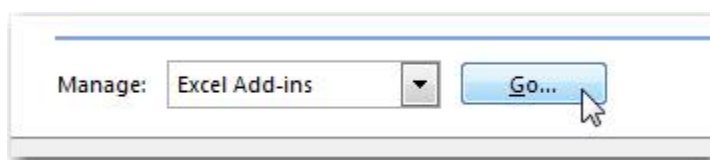
2. Click **Excel Options**



3. Click the **Add-Ins** category.



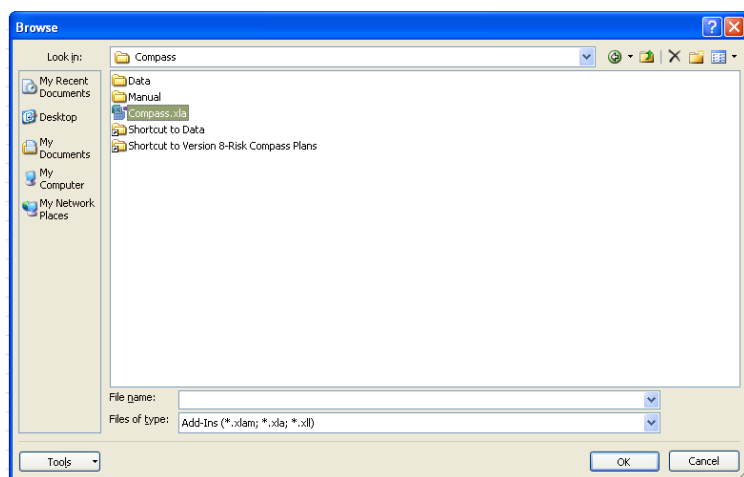
4. In the Manage box, select **Excel Add-Ins**, and then Click **Go**.



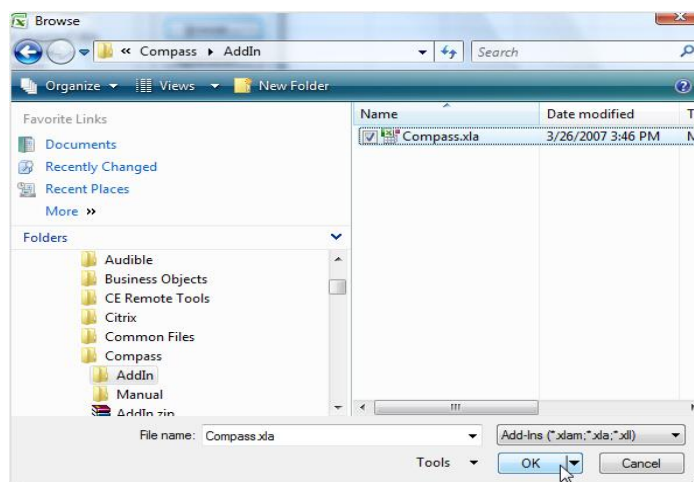
5. Load the **Compass.xla** Add-In file to the Add-In Available List
 - a. In the Add-In available box, click Browse, and open your C:/Program Files/Compass folder.

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- b. Select the Compass.xla file and click OK.

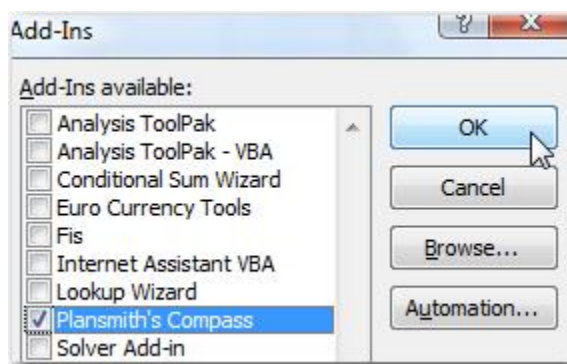


Windows XP
View

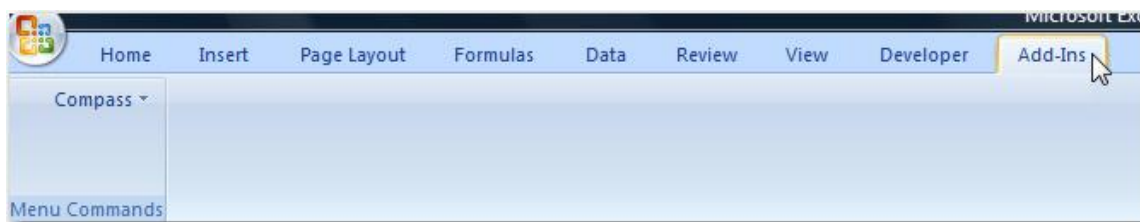


Windows Vista
View

- c. In the Add-Ins folder, check **Plansmith's Compass**, and select OK.

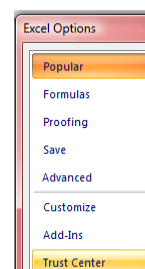


6. Select the **Add-Ins** option on the menu bar and the Compass menu option will appear.



C. To load the Add-In for Vista Users with high security settings:

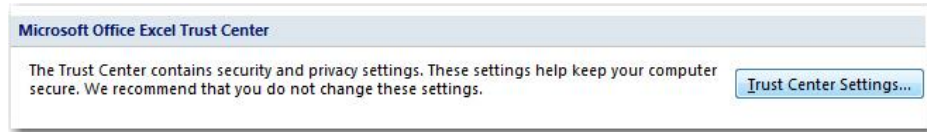
1. Click then **Microsoft Office Button**
2. Click **Excel Options**



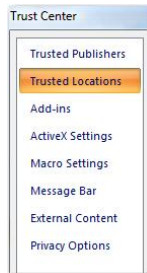
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3. Click **Trust Center**

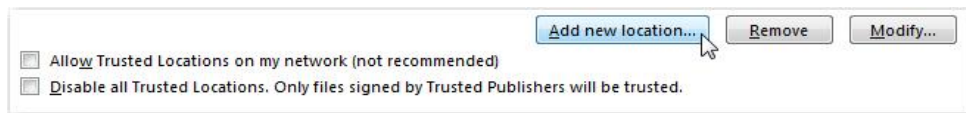
4. Click **Trust Center Setting**



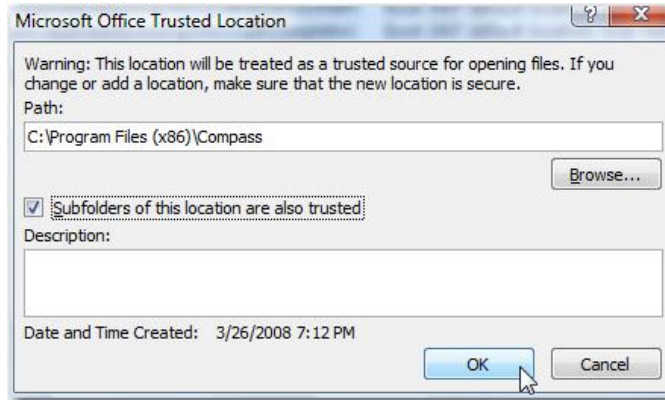
5. Click **Trusted Locations** option



a. Click **Add new location**



b. Browse for your Program Files\Compass folder and select OK. Depending on your operating system, (x64 or x86), the default Compass location will either be “C:\Program Files\Compass” or “C:\Program Files (x86)\Compass”.



Unloading Add-Ins from Excel

To conserve memory and improve hard drive performance, unload Add-Ins you do not use often by unchecking the option in the Add-Ins available. Unloading an Add-In removes its features and commands from Excel but the Add-In program remains on your computer so you can easily reload it. When you unload an Add-In program, it remains in memory until you restart Excel.

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Opening and Sharing Files

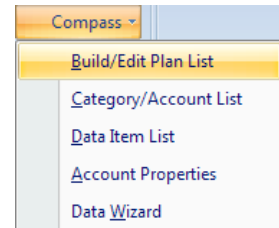
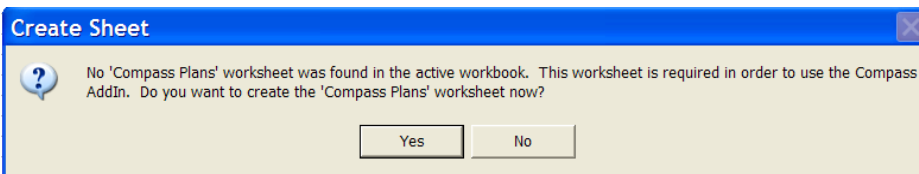
You cannot run Compass and an Excel spreadsheet containing Compass Add-In formulas at the same time nor can multiple people use the same plan at the same time.

Starting A Spreadsheet or Workbook

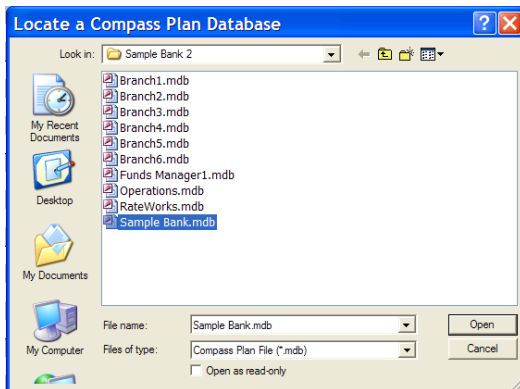
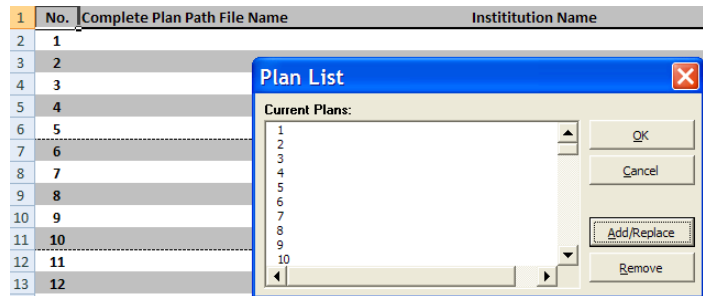
A streamline approach for building spreadsheets developed in the Excel Add-In for Compass is to use the shortcut methods available through the **Compass Menu** and **User Defined Functions** described below.

The Compass Menu

Build/Edit Plan List lets you reference the plans you intend to use from the Compass menu. Click “Yes” on the Create Sheet box that next appears.

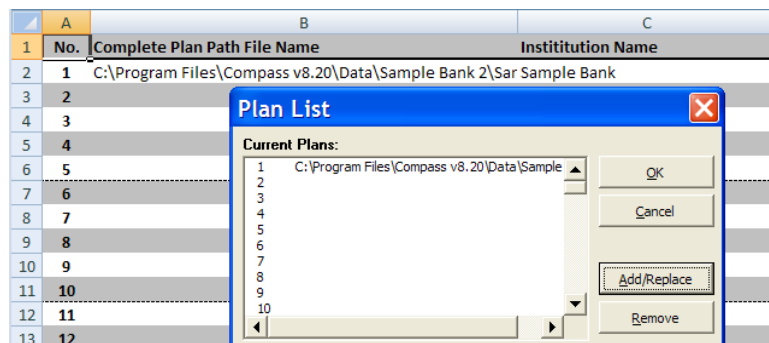


The Add-In will create a worksheet titled “**Compass Plans**”. A dialog box will open allowing you to add one or more Compass plans to the list.



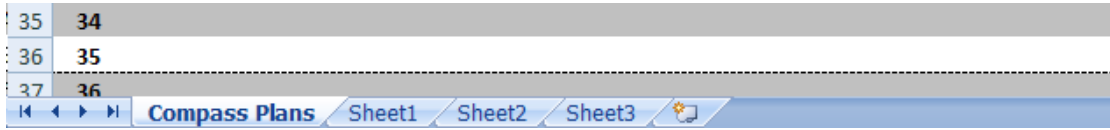
Click the Add/Replace button. Next, use the “Look in” box to find the folder or path where the Compass plan that you want to use is located. When you locate the plan file, select, or double click it and the plan path and name will be added under Current Plans in the Plan List box. Repeat this process until your list includes all of the plans that you might want to use (up to 99 different plans).

When you have selected all plans that you wish to reference, select OK on the plan list and their path file name and institution name will transfer to the Compass Plans worksheet.



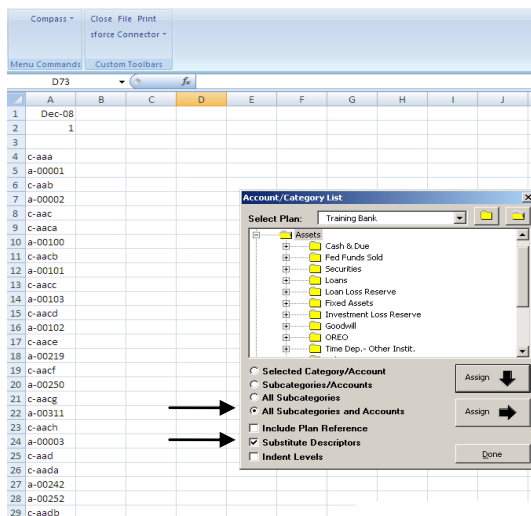
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To create a new workbook with an existing plan list, copy the file, rename it, and then delete all of the sheets but the Compass Plans page. You can then add new pages to build your new spreadsheet.



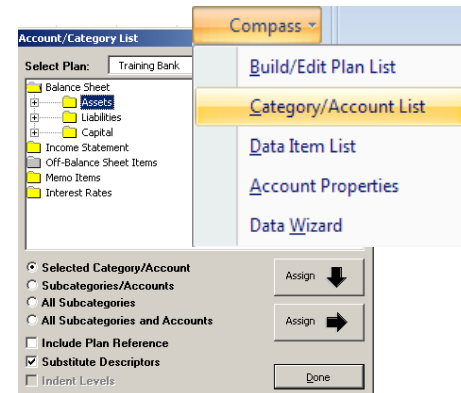
After attaching plans through the plan list, open the worksheet to begin creating your spreadsheet.

Category/Account List allows you to retrieve specific categories/ account codes from the Chart of Accounts of your Compass plan(s).

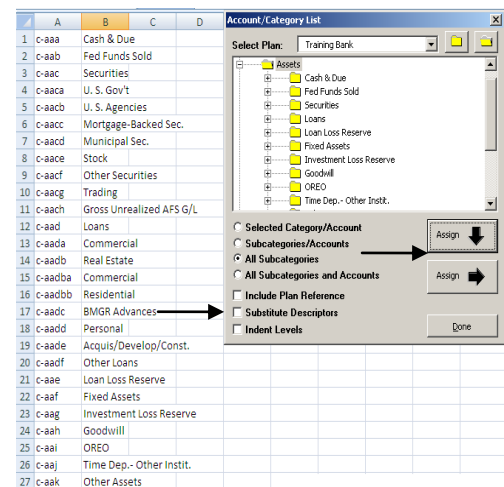


Example A

To populate the names for each subcategory and/or account: move the cursor on the worksheet to an adjacent column or row, uncheck the *Substitute Descriptors* option (as shown in Example B) and select either the vertical or horizontal *Assign* option. After you finish building your report, you can hide any column or row that contains function codes to enhance the appearance of your report (see Polishing the Report). Select “Done” to exit this menu.



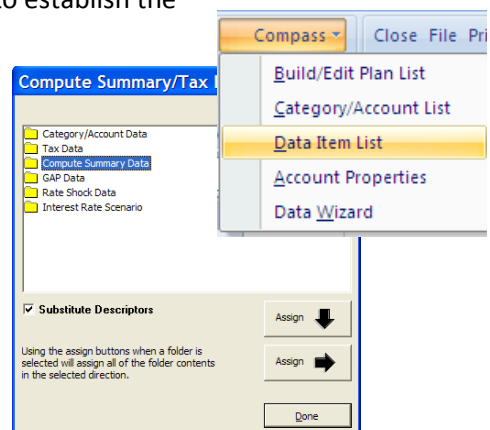
To pull in the plan’s function codes: check the *Substitute Descriptors* box, highlight a cell on your worksheet, select an account/category (such as Assets shown in Example A), and double click the account/category to reveal the subcategories. Pull the *Subcategories and/or Accounts* into the worksheet by selecting the corresponding radio button from the list. Finally, select either the vertical or horizontal *Assign* option to populate the cells.



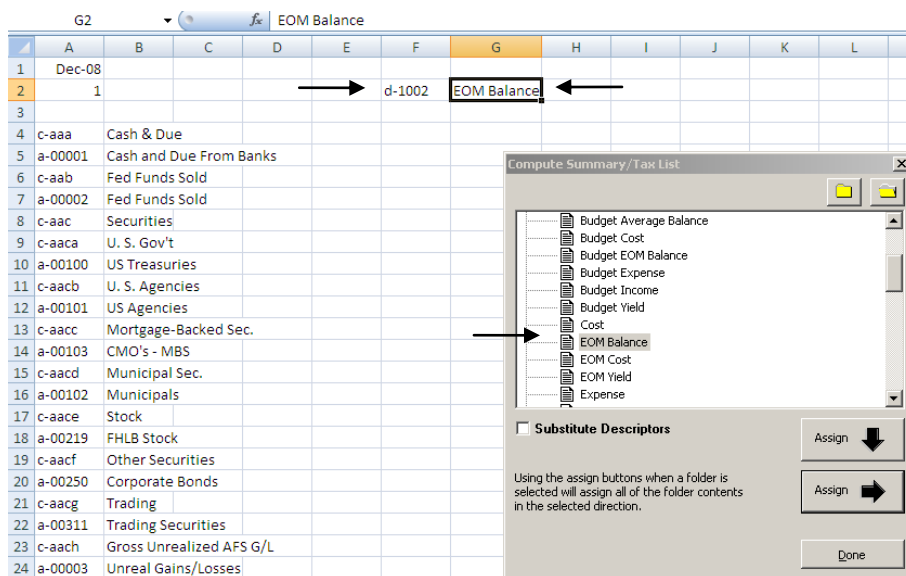
Example B

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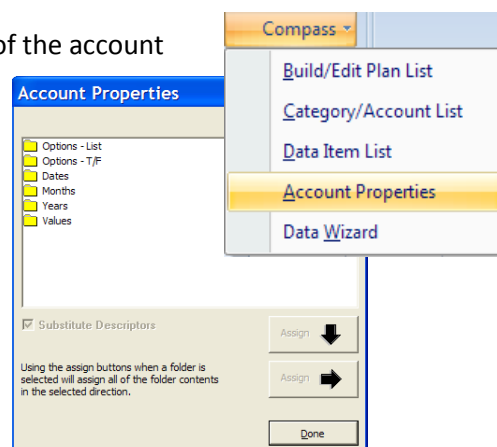
Data Item List includes Category/Account Data, Tax Data, Compute Summary Data, Gap Data, Rate Shock Data, and Interest Rate Scenario variables that are used to assign plan values to your worksheet. These cells are populated using the same methods as you use to establish the Account List described above.



In the following example, cell F1 reflects the data item code and G1 reflects the name of the variable that will be used to determine the value that will be assigned in the respective cells, the EOM Balance in this example.

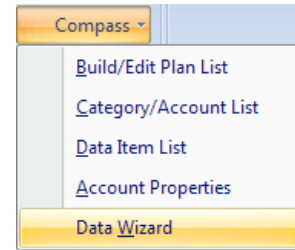


Account Properties gives you access to the codes and names of the account properties stored in Compass. Accrual basis, length of maturity of new balances, method of amortization, ceilings, floors, and decay rates are among the various properties listed in this menu option. Use this option if you are building assumption or audit reports to verify the behavior of Compass accounts and/or categories.



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Data Wizard acts as a shortcut to create arguments and populate reports with data. The wizard allows you to reference cells that contain the codes you pulled from the Category/Account List, Data Item List or Account Properties. You must enter a date reference and plan number on the worksheet prior to completing the Data Wizard as noted on the example below. (Refer to **Frequently Used Functions** section – **Last Update** for information on referencing the date so data fields will change as you update your plan).



Once the arguments are filled out, select OK to populate the report. To populate the wizard, first place your cursor in a line item on the data wizard then, highlight the cell that you want to pull. Notice that the white cells in the wizard window contain the cell name followed by the equal sign and the argument.

Data Reference - the data item code. In this example, D-1002 is our reference code for EOM Balance.

Date - type the date in any cell. The date can reflect previous periods or the most current update period. The format of the date should be Month-Year (Sep-08)

Cat/Acct Ref: Proj/Budget Ref: - the Compass function that references the category/account. In this example, c-aaa is the code for Cash & Due.

Plan - the line number of the Compass plan from the Compass Plans page, which in this example 1. If using multiple plans, change the plan number.

Once the arguments are completed, click OK and the cell will populate with the data referenced.

	A	B	C	D	E	F	G	H
1	Dec-08							
2	1					d-1002	EOM Balance	
3								
4	c-aaa	Cash & Due					4292.183594	
5	a-00001	Cash and Due From Banks						
6	c-aab	Fed Funds Sold						
7	a-00002	Fed Funds Sold						
8	c-aac	Securities						
9	c-aaca	U. S. Gov't						
10	a-00100	US Treasuries						

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Copying Formulas to other Cells

After a formula is entered in a cell, the formula can be copied to other cells, eliminating the need of creating a formula for each cell.

In Excel, the \$ sign holds a position. To copy a formula, remove the \$ sign from the cell reference in the formula bar. In this example, cell A4 contains the data that needs to be updated while the other arguments remain static. Delete both \$ signs in the formula bar referencing cell A4.

	A	B	C	D	E	F	G
1	Dec-08						
2	1					d-1002	EOM Balance
3							
4	c-aaa	Cash & Due					=cmpDataValue(\$F\$2,\$A\$1,\$A\$4,"1")
5	a-00001	Cash and Due From Banks					

After removing the sign, drag down the highlighted frame to encompass the other cells you wish to populate, as in this example, with the EOM Balance.

	A	B	C	D	E	F	G	H
1	Dec-08							
2	1					d-1002	EOM Balance	
3								
4	c-aaa	Cash & Due					4292.183594	
5	a-00001	Cash and Due From Banks					4291.428711	
6	c-aab	Fed Funds Sold					5131.855469	
7	a-00002	Fed Funds Sold					3696.379395	
8	c-aac	Securities					56871.13281	
9	c-aaca	U. S. Gov't					1998	
10	a-00100	US Treasuries					2058.77124	
11	c-aacb	U. S. Agencies					36885.27734	
12	a-00101	US Agencies					33653.38281	
13	c-aacc	Mortgage-Backed Sec.					1320	
14	a-00103	CMO's - MBS					0	
15	c-aacd	Municipal Sec.					7099.547363	
16	a-00102	Municipals					6959.428711	
17	c-aace	Stock					1282	
18	a-00219	FHLB Stock					1320.993164	
19	c-aacf	Other Securities						
20	a-00250	Corporate Bonds						
21	c-aacg	Trading						
22	a-00311	Trading Securities						

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Polishing the Report

To create a report without the codes, use Excel's Hide function. Highlight the column or row, right click and select Hide. The column or row will minimize and not appear on the report.

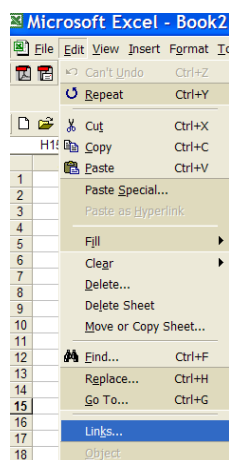
	A	B	C	D	E	F	G
1	Dec-						
2						d-1002	EOM Balance
3							
4	c-aaa						4292.183594
5	a-00001						4291.428711
6	c-aab						5131.855469
7	a-00002						3696.379395
8	c-aac						56871.13281
9	c-aaca						1998
10	a-00100						2058.77124
11	c-aacb						36885.27734
12	a-00101						33653.38281
13	c-aacc						1320
14	a-00103						0
15	c-aacd						7099.547363
16	a-00102						6959.428711
17	c-aace						1282
18	a-00219						1320.993164
19	c-aacf						8286.30957
20	a-00250						8122.768555
21	c-aacg						0
22	a-00311						0
23	c-aach						0
24	a-00003						0

1							
2						d-1002	EOM Balance
3							
4	Cash & Due						4292.183594
5	Cash and Due From Banks						4291.428711
6	Fed Funds Sold						5131.855469
7	Fed Funds Sold						3696.379395
8	Securities						56871.13281
9	U. S. Gov't						1998
10	US Treasuries						2058.77124
11	U. S. Agencies						36885.27734
12	US Agencies						33653.38281
13	Mortgage-Backed Sec.						1320
14	CMO's - MBS						0
15	Municipal Sec.						7099.547363
16	Municipals						6959.428711
17	Stock						1282
18	FHLB Stock						1320.993164
19	Other Securities						8286.30957
20	Corporate Bonds						8122.768555
21	Trading						0
22	Trading Securities						0
23	Gross Unrealized AFS G/L						0
24	Unreal Gains/Losses						0

Working with Spreadsheets Received From Others

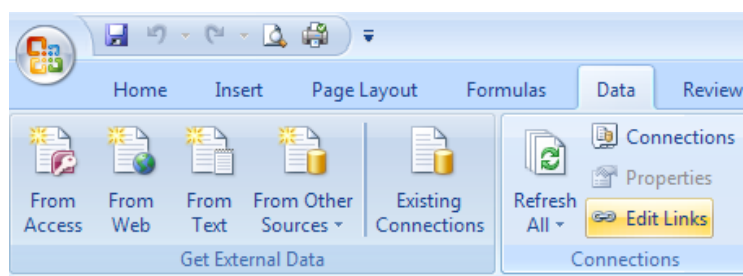
Spreadsheets that you receive from others, including those provided to you by Plansmith may need to be edited to reflect the location of the Compass.xla file on your computer. You will know that editing is necessary if cells show up as “#NAME?” This occurs because Excel could not automatically change the path of the Excel Add-In for Compass from the author's computer to the current computer.

Before completing this process, you will need to know the path that Excel is using for the Add-In. The easiest way to determine the location is to do a Search (or Find on older versions of Explorer). First, close Excel. Then, right click the Start button on your windows taskbar. Search your entire C:\ drive for the Compass.xla file. If you find it more than once, delete all copies except the one in the location that you intend to use. If you are not sure which path is correct, write down the path of all the locations. Now return to Excel and re-open the spreadsheet.



Edit Links Excel
2000-2006

To initialize the transferred spreadsheet, select **Edit**, then **Links**. When the Links box appears, you will likely see multiple entries, one of which will be Compass.xla and others that have a path ending with Compass.xla. Select the correct link by clicking on it, and then click the **Change Source** button. Once selected, the other paths should disappear. If they do not, try another path that you wrote down.



Edit Links in Excel 2007

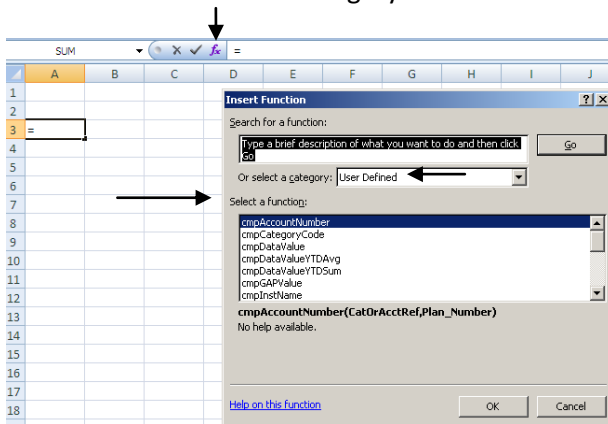
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In addition to changing the links you will need to update the plan list and verify the plans listed on the Compass Plans worksheet is correct. If they are not, Add/Replace the plans listed. **Plansmith recommends that whenever the plan list is changed, that you save and close the workbook, then re-open it to refresh all numbers and formulas.**

Using User Defined Functions

On occasion, there will be instances where you will want to use the pre-defined function (f_x) keys that are stored on Excel. Function codes are prewritten formulas that simplify the process of entering calculations and further streamline the process of using the Compass Menu Items.

When you installed the Excel Add-In, Compass created a new set of function codes that are listed under the **User Defined** category.



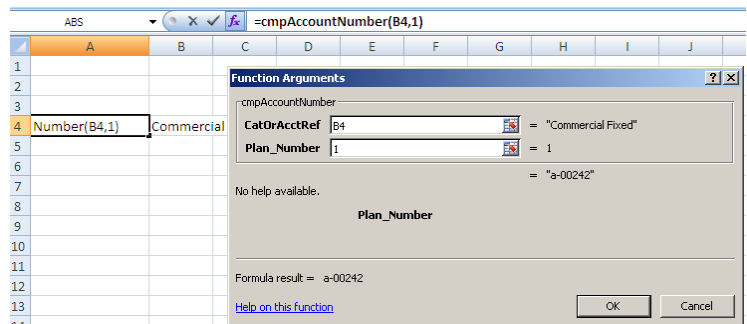
The ten most frequently used functions are listed below. After selecting the function code, the Excel wizard will guide you with pulling in the data.

In describing which plan to reference, the Excel function will use the **Plan Number** argument. The first plan listed will have Plan Number=1. The second plan in the list will have Plan Number=2, etc. The system currently supports up to 99 plans.

Frequently Used Functions

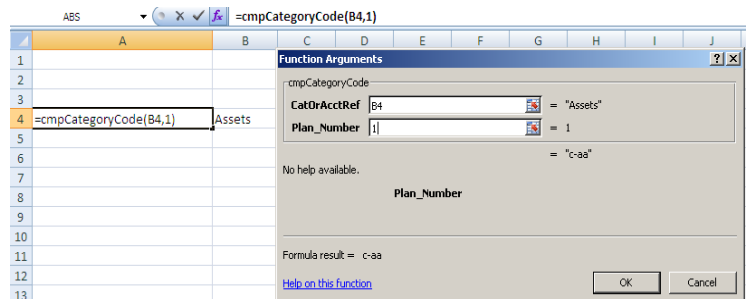
Account Number function retrieves Compass' alphanumeric account code specific to your bank. One application of this function is to reverse engineer a report originally sent from Compass to Excel using the "Print to Excel" option.

- `cmpAccountNumber(Exact Account Name, Bank Number)`



Category Code is just like the Account Number function above, except it applies to the categories, or folders, in Compass.

- `cmpCategoryCode(Exact Category Name, Bank Number)`

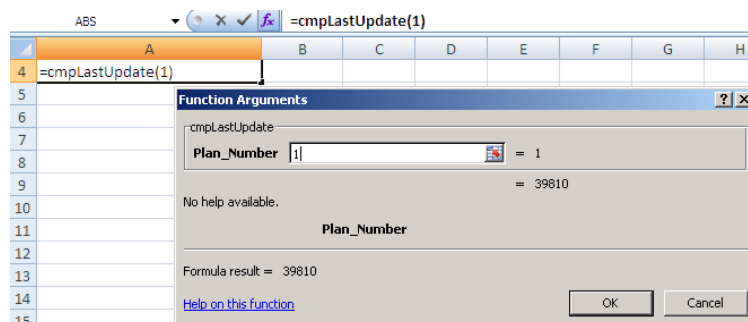


Last update shows the date of the latest

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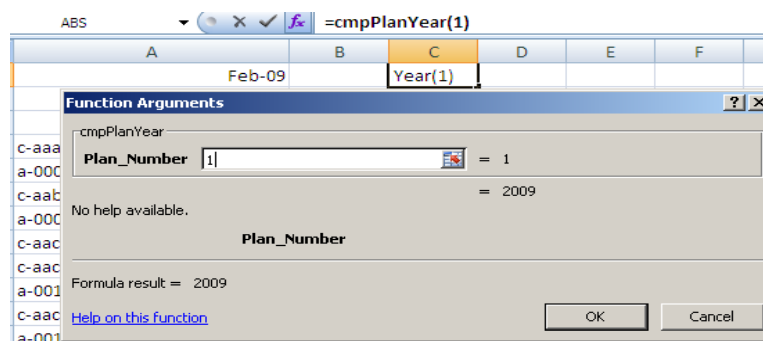
month of actual data in the plan. Referencing this cell as your date will consistently refresh your formulas with each plan update to create dynamic reports.

- cmpLastUpdate(Bank Number)



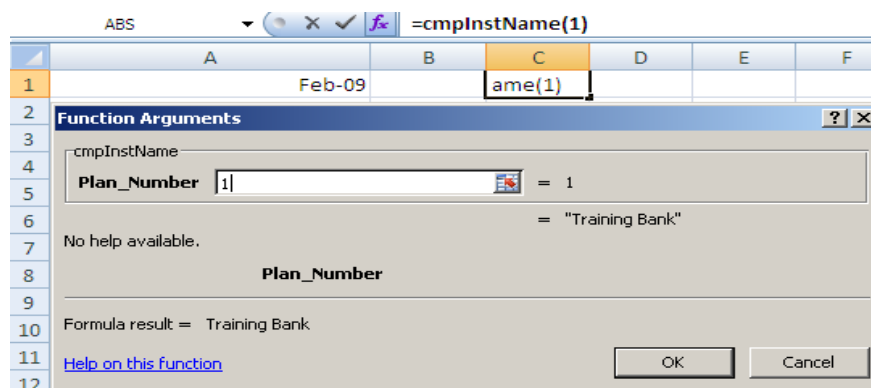
Plan Year shows the current year (four digits) of the plan.

- cmpPlanYear(Bank Number)



Institution Name shows the bank or unit name from the selected Compass plan. This is useful for report headings or column headings that will update automatically when the plan list is modified or when unit names are changed in Compass.

- cmpInstName(Bank Number)



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Entering Functions, Values and Formulas Manually

The most direct, and yet the most difficult way to build a spreadsheet is to type the formulas one at a time. This is done by typing “=” the equal sign, typing one of the function names, and then typing in the “Arguments” which answer these four questions:

- Which **Data** (EOM Balance, Avg Balance, etc.) do you want to use?
- Which **Date** do you want to use?
- Which **Account** do you want to use?
- Which **Plan** do you want to use?

The formula bar will typically appear as: =cmpDataValue(Data,Date,Account,Plan) where the Arguments are the details between () the parentheses following the function name. They must be in exact order, separated by a comma, and include extra spaces. If an argument needs to have spaces or punctuation, enclose it in quotation marks like “Cash and Due.”

Compass Function Codes

There are thirteen function code categories that provide access to various types of data within your plan. The plan references a Microsoft Access database that uses the following codes in place of names to identify sets of data:

a - Account	i - Rates
c-a - Balance Sheet	o - Interest Rate Scenarios
c-b - Income Statement	p - Properties
c-c - Off Balance Sheet Items	r - Rate Shock Data
c-d - Memo Items	s - Compute Summary Data
d - Account Data	t - Tax Data
g - Gap Data	

The following codes are standard category codes that are used most frequently. Depending on the layout of your Chart of Accounts and the names on your accounts, your codes could differ. To verify these codes, either pull them from the Category/Account list or use the Category Code function key to determine a category code. **Account Data Codes** are not listed in that they are bank specific and you can pull them from the Compass Menu or through the Account Code Function Key.

Category Data Codes

c-aa	Assets	c-aca	Common Stock
c-aaa	Cash & Due	c-acb	Surplus
c-aab	Fed Funds Sold	c-acc	Preferred Stock
c-aac	Securities	c-acd	Undivided Profit
c-aaca	U. S. Gov't	c-ace	Current Earnings
c-aacb	U. S. Agencies	c-acf	Dividends
c-aacc	Mortgage-Backed Sec.	c-acg	Capital Notes
c-aacd	Municipal Sec.	c-ach	Net Unrealized AFS G/L
c-aace	Stock	c-aci	Other Capital
c-aacf	Other Securities	c-ba	Non-Interest Income

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c-aacg	Trading	c-baa	Trust Income
c-aach	Gross Unrealized AFS G/L	c-bab	Service Charges
c-aad	Loans	c-bac	Fee Income
c-aada	Commercial	c-baca	Loan Fees
c-aadb	Real Estate	c-bacb	Other Fee Income
c-aadba	Commercial	c-bad	Extraordinary Income
c-aadbb	Residential	c-bada	Realized Bond Gains
c-aadc	BMGR Advances	c-badb	Other Extraordinary Income
c-aadd	Personal	c-bae	Insurance Income
c-aade	Acquis/Develop/Const.	c-baf	Other Income
c-aadf	Other Loans	c-bb	Non-Interest Expense
c-aae	Loan Loss Reserve	c-bba	Employee
c-aaf	Fixed Assets	c-bbb	Occupancy
c-aag	Investment Loss Reserve	c-bbc	Data Processing
c-aah	Goodwill	c-bbd	Marketing
c-aai	OREO	c-bbe	Loan Loss Provision
c-aaj	Time Dep. - Other Instit.	c-bbf	Investment Loss Provision
c-aak	Other Assets	c-bbg	Extraordinary Expense
c-ab	Liabilities	c-bbga	Realized Bond Losses
c-aba	Demand Deposits	c-bbgb	Other Extraordinary Expense
c-abb	Interest Bearing Deposits	c-bbh	Furniture/Equipment/Auto
c-abba	NOW Accounts	c-bbi	Supplies & Printing
c-abbb	Money Market Accounts	c-bbj	Legal & Professional
c-abbc	Savings	c-bbk	Outside Services
c-abbd	Time Deposits	c-bbl	Other Expense
c-abbda	CD's > 100K	c-c	Off-Balance Sheet Items
c-abbdb	CD's < 100K	c-ca	Interest Rate Swaps
c-abbe	Other Int. Bearing Deposits	c-cb	Loan Commitments
c-abc	Fed Funds Purchased	c-cc	Standby Letters of Credit
c-abd	Borrowed Funds	c-cd	Interest Rate Caps

Data Item Codes

d-1029	Adjusted New Maturities	d-1030	New Maturities Exit Rate
d-1044	Adjusted New Repricings	d-1037	New Prepayments
d-1032	Adjusted Scheduled Maturities	d-1038	New Prepayments Exit Rate
d-1054	Adjusted Scheduled Maturities Exit Rate	d-1043	New Repricings
d-1047	Adjusted Scheduled Repricings	d-1045	New Repricings Exit Rate
d-1001	Avg Balance	d-1004	Offering Rate
d-1005	Budget Average Balance	d-1049	Repricing Rate
d-1010	Budget Cost	d-1031	Scheduled Maturities
d-1006	Budget EOM Balance (and Memo Items)	d-1033	Scheduled Maturities Exit Rate
d-1009	Budget Expense	d-1039	Scheduled Prepayments
d-1007	Budget Income	d-1040	Scheduled Prepayments Exit Rate
d-1008	Budget Yield	d-1046	Scheduled Repricings
d-1014	Cost	d-1048	Scheduled Repricings Exit Rate
d-1002	EOM Balance (and Memo history)	d-1034	Total Maturities

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d-1053	EOM Cost	d-1035	Total Maturities Exit Rate
d-1052	EOM Yield	d-1041	Total Prepayments
d-1013	Expense	d-1042	Total Prepayments Exit Rate
d-1011	Income	d-1050	Total Repricings
d-1036	Memo Items (Current Year & Proj.)	d-1051	Total Repricings Exit Rate
d-1003	New Balance	d-1012	Yield
d-1028	New Maturities		

Compute Summary Data

s-3023	Annualized Expense (\$'s)	s-3040	Fed Tax Exempt Non TEFRA Avg Assets (000's)
s-3022	Annualized Income (\$'s)	s-3043	Fed Tax Exempt Non TEFRA EOM Assets (000's)
s-3001	Average Assets (000's)	s-3031	Fed Tax Exempt Non TEFRA FTE Int Inc (\$'s)
s-3005	Average Capital (000's)	s-3033	Fed Tax Exempt Non TEFRA FTE Int Inc Adj (\$'s)
s-3098	Average Capital Notes (000's)	s-3028	Fed Tax Exempt Non TEFRA Int Inc (\$'s)
s-3095	Average Demand Deposits (000's)	s-3041	Fed Tax Exempt TEFRA Avg Assets (000's)
s-3011	Average Earning Assets (000's)	s-3044	Fed Tax Exempt TEFRA EOM Assets (000's)
s-3021	Average Equity Capital (000's)	s-3032	Fed Tax Exempt TEFRA FTE Int Inc (\$'s)
s-3096	Average Interest Bearing Deposits (000's)	s-3034	Fed Tax Exempt TEFRA FTE Int Inc Adj (\$'s)
s-3003	Average Liabilities (000's)	s-3029	Fed Tax Exempt TEFRA Int Inc (\$'s)
s-3094	Average Loans (000's)	s-3050	Fed Taxes - Distributed (\$'s)
s-3013	Average Non Earning Assets (000's)	s-3049	Fed Taxes - Undistributed (\$'s)
s-3015	Average Paying Liabilities (000's)	s-3073	Free Funds Ratio
s-3081	Average Required Capital (000's)	s-3087	Int Exp/Earning Assets Ratio
s-3097	Average Time Deposits (000's)	s-3089	Int Exp/Paying Liabilities Ratio
s-3079	Avg Investment Loss Reserve (000's)	s-3086	Int Inc/Earning Assets(FTE) Ratio
s-3078	Avg Loan Loss Reserve (000's)	s-3008	Interest Expense (\$'s)
s-3099	Bond Gains (\$'s)	s-3007	Interest Income (\$'s)
s-3084	Break Even Yield	s-3090	Interest Spread(FTE) Ratio
s-3065	Capital/Deposit Ratio	s-3100	Investment Loss Provision (\$'s)
s-3060	Capital/Risk Weighted Assets Ratio	s-3075	Loan Fees (\$'s)
s-3092	Capital/Total Deposits Ratio	s-3051	Loan Loss Provision (\$'s)
s-3057	Cash Adjustment (000's)	s-3069	Loan Loss Reserve Ratio
s-3070	Demand Deposit Ratio	s-3068	Loan/Asset Ratio
s-3002	EOM Assets (000's)	s-3067	Loan/Deposit Ratio
s-3006	EOM Capital (000's)	s-3046	Net Income (\$'s)
s-3061	EOM Capital Notes (000's)	s-3088	Net Interest Margin(FTE) Ratio
s-3074	EOM Current Earnings (000's)	s-3085	Net Overhead
s-3063	EOM Demand Deposits (000's)	s-3054	New Balance of Current Earnings (000's)
s-3076	EOM Dividends (000's)	s-3036	Non Fed Tax Deductible Non Int Exp (\$'s)
s-3012	EOM Earning Assets (000's)	s-3010	Non Interest Expense (\$'s)
s-3064	EOM Interest Bearing Deposits (000's)	s-3009	Non Interest Income (\$'s)
s-3080	EOM Investment Loss Reserve (000's)	s-3026	Non State Tax Deductible Non Int Exp (\$'s)
s-3004	EOM Liabilities (000's)	s-3093	Non-Taxable Asset Ratio
s-3059	EOM Loan Loss Reserve (000's)	s-3045	Pre Tax Net Income (\$'s)
s-3066	EOM Loans (000's)	s-3053	Previous EOM Balance Current Earnings (000's)
s-3014	EOM Non Earning Assets (000's)	s-3052	Previous New Balance of Current Earnings (000's)
s-3016	EOM Paying Liabilities (000's)	s-3082	Return on Average Assets Ratio
s-3071	EOM Time Deposits (000's)	s-3083	Return on Equity Capital Ratio

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s-3077	EOM Undivided Profits (000's)	s-3017	Risk Weighted Avg Earning Assets (000's)
s-3058	Earning Asset Ratio	s-3019	Risk Weighted Avg Non Earning Assets (000's)
s-3091	Efficiency Ratio(FTE)	s-3018	Risk Weighted EOM Earning Assets (000's)
s-3062	Equity Capital Ratio	s-3020	Risk Weighted EOM Non Earning Assets (000's)
s-3055	Fed Funds Balance Adj. (000's)	s-3037	State Tax Exempt Avg Assets (000's)
s-3056	Fed Funds Income/Expense Adj. (\$'s)	s-3038	State Tax Exempt EOM Assets (000's)
s-3039	Fed Tax Exempt Avg Assets (000's)	s-3024	State Tax Exempt Int Inc (\$'s)
s-3042	Fed Tax Exempt EOM Assets (000's)	s-3025	State Tax Exempt Non Int Inc (\$'s)
s-3030	Fed Tax Exempt FTE Int Inc (\$'s)	s-3048	State Taxes - Distributed (\$'s)
s-3027	Fed Tax Exempt Int Inc (\$'s)	s-3047	State Taxes - Undistributed (\$'s)
s-3035	Fed Tax Exempt Non Int Inc (\$'s)	s-3072	Time Deposit Ratio

Tax Data

t-4001	Federal Tax	t-4002	State Tax
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Account Property Codes

p-5001	Accrual Method	p-5020	Yield
p-5002	Amortization Method	p-5021	Call Date
p-5003	Decay Mode	p-5022	Created
p-5004	Payment Frequency	p-5023	Modified
p-5005	Rate Structure	p-5024	Balloon Due
p-5006	RBC Factor	p-5025	Call Frequency
p-5007	Tax Option	p-5026	Time to Maturity
p-5008	AFS Flag	p-5027	Time to Repricing
p-5009	Amortizing	p-5028	Decay Rate
p-5010	Cost	p-5029	Absolute Ceiling
p-5011	Expense	p-5030	Absolute Floor
p-5012	Income	p-5031	Base Yield
p-5013	Interest Bearing	p-5032	Cost Factor
p-5014	Maturing	p-5033	Expert Banker Account Number
p-5015	Out of Balance Maturities	p-5034	Out of Balance Maturities Amount
p-5016	Out of Balance Repricings	p-5035	Out of Balance Repricings Amount
p-5017	Prepaying	p-5036	Periodic Cap
p-5018	Repricing	p-5037	Relative Ceiling
p-5019	Required Account	p-5038	Relative Floor

Rate Codes

i-00001	Fed Funds	i-00012	3 mo LIBOR
i-00002	3 mo T-bill	i-00013	6 mo LIBOR
i-00003	6 mo T-bill	i-00014	30 day CP
i-00004	1 yr CMT	i-00015	90 day BA
i-00005	2 yr CMT	i-00016	90 day CD
i-00006	3 yr CMT	i-00017	30 yr Fixed
i-00007	5 yr CMT	i-00018	Corp Aaa
i-00008	10 yr CMT	i-00019	Corp Baa
i-00009	25 yr +	i-00020	State & Local
i-00010	PRIME	i-00021	Utility A
i-00011	1 mo LIBOR	i-00022	11th District COFI

GLOSSARY OF TERMS

TERM	DEFINITION
Adjusted Scheduled Maturities	Contractual amortization adjusted by prepayment amounts from earlier months. See also: Scheduled Maturities, Total Maturities.
Adjusted Scheduled Repricings	Contractual repricings adjusted for prepayments.
ALCO	Asset/Liability Committee, a group of financial institution managers and/or directors charged with the responsibility of formulating the institution's policy and procedure to evaluate and manage interest rate risk.
Average Term (or Life)	The time-weighted average maturity or repricing of assets and liabilities.
Budget Cost	The weighted average interest rate on a liability for the month. Should be equal to the annualized monthly budget income divided by the average balance for that month, but Compass does not calculate this field in the budget area.
Capital Risk Tolerance	The reduction in bank equity that would cause the equity to fall to the minimum required ratio to assets. It is computed as the current capital less the minimum capital required.
Convexity	Describes the shape of the line graphing market value of equity when market values are adversely impacted by Optionality .
Cumulative Gap	The sum of the periodic rate sensitivity gaps over the next 12 months.
Decay Rate	An artificial maturity structure for a balance sheet account that has no contractual maturity. The maturity structure can be used in Gap, Market Value or both Gap and Market Value calculations.
Earnings at Risk	The actual income loss in dollars due to rate change from the current level. It is computed by subtracting the net interest income at each Rate Shock increment from the current or zero change level. Only potential losses are reported.
Driver Rate	A market interest rate that is beyond the control of the individual financial institution that influences pricing decisions of the institution.
Duration	The percent change in market value (price) of a financial instrument for every 100bp change in interest rates. Duration is usually expressed in months. Divide the Duration in months by 12 to convert to percentage.

Dynamic Gap	Gap analysis performed at a time in the future based upon a projected starting point, with asset/liability mix affected by management's strategy.
Economic Value of Equity (EVE)	The difference between the market value of the assets and market value of the liabilities. It is the bank's liquidation value if assets were sold and liabilities paid off.
EOM Balance	The balance projected for the last day of the month. For an account with maturities, the EOM balance is the sum of last month's end of month balance, new balances generated in the month, less Total Maturities .
EOM Yield	The yield of the account as of month end. Should be equal to the weighted average yield of all maturities in the account.
Factor	A percentage relationship between driver and a price. For example, a Factor of 50% would mean a price of 3% if the driver were at 6%, and a price of 5% if the driver is at 10%.
Fully Tax Equivalent (FTE)	This is the adjustment to yield and margin that accounts for the non-taxable or partial taxability of some investments and loans.
Gap	The dollar difference between total rate sensitive assets and total rate sensitive liabilities over a selected period of time. Rate sensitivity is the total of maturities, amortizations, repricings, and prepayments during the selected period.
Interest Rate Risk	Risk of a decline in a financial institution's earnings or liquidation value caused by changes in market levels of interest rates.
Margin Risk Tolerance	The difference between the bank's current net interest margin and its minimum required margin needed to meet all expenditures including dividends and capital formation (if needed).
Market Rate	This is the current competitive rate on new loans within the bank's trade area. The Market Rate is used as the discounting rate in the market value calculation.
Market Value	Current market values of the interest bearing balance sheet categories are calculated using the discounted cash flow method or supplied in the call report.
Market Value of Equity (MVE)	Theoretical liquidation value of an institution determined by calculating the Market Value of Assets and the Market Value of Liabilities, then subtracting Market Value of Liabilities from Market Value of Assets.
Model	1. A mathematical relationship between a driver (independent variable) and an outcome (dependent variable).

2. A shortcut to apply a single assumption (or set of assumptions) to a number of different elements.

Minimum Margin	The net interest margin needed to meet all expenditures as well as dividends and capital formation, if needed. If the net interest margin falls below the minimum, then capital formation and, ultimately, the capital ratio will fall.
New Maturities	Maturities resulting from amortization or final maturity of balances added after projections begin. These amounts are determined by account properties set with the Account Wizard or Edit Properties options. (See also: Scheduled Maturities.)
New Repricings	Balances that will reprice each month on transactions originated subsequent to the last day of actual data. This is determined by the properties set in the Account Wizard or Edit Properties options.
Offering Rate	The interest rate of new balances (new transactions) on an account with maturities, or the rate on all balances for an account without maturities.
Optionality	The ability of the financial institution's customers (or bond issuers) to prepay or redeem when market interest rates make it attractive for them to do so.
Prepayment	A full or partial repayment or redemption earlier than specified in the contract between the customer (or issuer) and the financial institution.
Prepayment Model	An estimate of a monthly percentage of early payments. In a "full" or "dynamic" model, the percentage varies according to the amount of Spread .
Price	The offering rate, or rate offered on new transactions. This rate may be influenced by a Driver Rate , but may react in a complex, rather than linear manner to Driver Rate changes.
Ramped Rate Shock	Rate Shock computed by gradually applying the amount of rate change over the time horizon selected. For example, a 300 basis point Ramped Rate Shock changes Driver Rates by 27.27 basis points (300/11) in months 2-12 in a 1 year rate shock.
Rate Sensitivity Gap	The difference between repricing or maturing assets and liabilities in a given time period.
Rate Shock	A technique that simulates rate changes over a specified time horizon from 12 - 60 months and the reinvestment of maturity cash flows and repricing of both earning assets and interest bearing liabilities. The results show the impact on interest margin as rates move up and down, holding all account volumes constant.

Risk Cushion	The difference between the risk adjusted margin for a 100bp rate change or the risk adjusted capital for a 100bp rate change and the current margin or capital.
Scenario	A particular set of rate and volume assumptions created to test the results of an alternate course of management action.
Scheduled Maturities	Contractual principal payments and final maturities of the portfolio that existed on the last day of the month of actual data. See also: New Maturities, Prepayment, Total Maturities.
Scheduled Maturities Xrate	The Xrate of the Scheduled Maturities in a particular month.
Scheduled Prepayments	The amount of payments or principal reductions in excess of contractually required amounts. Prepayments are calculated by application of a Prepayment Model to an account or category.
Spread	<ol style="list-style-type: none"> 1. The difference between the Driver Rate and the Price, expressed as an addition or subtraction (See also: Factor) 2. The difference between the existing rate to the customer and the institution's current rate for new transactions on that product. In Compass, a positive spread is always defined as an advantage to the customer.
Total Maturities	The sum of Adjusted Scheduled Maturities, Prepayments, and New Maturities.
Total Maturities Xrate	The Xrate of Total Maturities.
Variance Report	<p>A report that compares:</p> <ol style="list-style-type: none"> 1. Actual results to budget results 2. Actual results from one period of time to another 3. Actual results to peer group averages 4. Any combination above
Xrate	The weighted average rate for the item to the left. The weighted average rate is calculated by multiplying each note, security or certificate amount by its rate, adding the total of all such results, and dividing that result by the total end of month balance.
Yield	The percentage of annualized monthly income or expense divided by the average balance for that month.

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