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PeopleSoft EPM 9.1: Funds Transfer Pricing

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Contents

Preface

Understanding the PeopleSoft Online Help and PeopleBooks

The PeopleSoft Online Help is a website that enables you to view all help content for PeopleSoft Applications and PeopleTools. The help provides standard navigation and full-text searching, as well as context-sensitive online help for PeopleSoft users.

PeopleSoft Hosted Documentation

You access the PeopleSoft Online Help on Oracle's PeopleSoft Hosted Documentation website, which enables you to access the full help website and context-sensitive help directly from an Oracle hosted server. The hosted documentation is updated on a regular schedule, ensuring that you have access to the most current documentation. This reduces the need to view separate documentation posts for application maintenance on My Oracle Support, because that documentation is now incorporated into the hosted website content. The Hosted Documentation website is available in English only.

Locally Installed Help

If your organization has firewall restrictions that prevent you from using the Hosted Documentation website, you can install the PeopleSoft Online Help locally. If you install the help locally, you have more control over which documents users can access and you can include links to your organization's custom documentation on help pages.

In addition, if you locally install the PeopleSoft Online Help, you can use any search engine for full-text searching. Your installation documentation includes instructions about how to set up Oracle Secure Enterprise Search for full-text searching.

See *PeopleTools 8.53 Installation* for your database platform, "Installing PeopleSoft Online Help." If you do not use Secure Enterprise Search, see the documentation for your chosen search engine.

Note: Before users can access the search engine on a locally installed help website, you must enable the Search portlet and link. Click the Help link on any page in the PeopleSoft Online Help for instructions.

Downloadable PeopleBook PDF Files

You can access downloadable PDF versions of the help content in the traditional PeopleBook format. The content in the PeopleBook PDFs is the same as the content in the PeopleSoft Online Help, but it has a different structure and it does not include the interactive navigation features that are available in the online help.

Common Help Documentation

Common help documentation contains information that applies to multiple applications. The two main types of common help are:

- Application Fundamentals

- Using PeopleSoft Applications

Most product lines provide a set of application fundamentals help topics that discuss essential information about the setup and design of your system. This information applies to many or all applications in the PeopleSoft product line. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of the appropriate application fundamentals help. They provide the starting points for fundamental implementation tasks.

In addition, the *PeopleTools: PeopleSoft Applications User's Guide* introduces you to the various elements of the PeopleSoft Pure Internet Architecture. It also explains how to use the navigational hierarchy, components, and pages to perform basic functions as you navigate through the system. While your application or implementation may differ, the topics in this user's guide provide general information about using PeopleSoft Applications.

Field and Control Definitions

PeopleSoft documentation includes definitions for most fields and controls that appear on application pages. These definitions describe how to use a field or control, where populated values come from, the effects of selecting certain values, and so on. If a field or control is not defined, then it either requires no additional explanation or is documented in a common elements section earlier in the documentation. For example, the Date field rarely requires additional explanation and may not be defined in the documentation for some pages.

Typographical Conventions

The following table describes the typographical conventions that are used in the online help.

Typographical Convention	***Description***
Bold	Highlights PeopleCode function names, business function names, event names, system function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
Italics	Highlights field values, emphasis, and PeopleSoft or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply. Italics also highlight references to words or letters, as in the following example: Enter the letter *O*.
Key+Key	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For Alt+W, hold down the Alt key while you press the W key.
`Monospace font`	Highlights a PeopleCode program or other code example.
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.

Typographical Convention	*Description*
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
⇒	This continuation character has been inserted at the end of a line of code that has been wrapped at the page margin. The code should be viewed or entered as a single, continuous line of code without the continuation character.

ISO Country and Currency Codes

PeopleSoft Online Help topics use International Organization for Standardization (ISO) country and currency codes to identify country-specific information and monetary amounts.

ISO country codes may appear as country identifiers, and ISO currency codes may appear as currency identifiers in your PeopleSoft documentation. Reference to an ISO country code in your documentation does not imply that your application includes every ISO country code. The following example is a country-specific heading: "(FRA) Hiring an Employee."

The PeopleSoft Currency Code table (CURRENCY_CD_TBL) contains sample currency code data. The Currency Code table is based on ISO Standard 4217, "Codes for the representation of currencies," and also relies on ISO country codes in the Country table (COUNTRY_TBL). The navigation to the pages where you maintain currency code and country information depends on which PeopleSoft applications you are using. To access the pages for maintaining the Currency Code and Country tables, consult the online help for your applications for more information.

Region and Industry Identifiers

Information that applies only to a specific region or industry is preceded by a standard identifier in parentheses. This identifier typically appears at the beginning of a section heading, but it may also appear at the beginning of a note or other text.

Example of a region-specific heading: "(Latin America) Setting Up Depreciation"

Region Identifiers

Regions are identified by the region name. The following region identifiers may appear in the PeopleSoft Online Help:

- Asia Pacific
- Europe
- Latin America

- North America

Industry Identifiers

Industries are identified by the industry name or by an abbreviation for that industry. The following industry identifiers may appear in the PeopleSoft Online Help:

- USF (U.S. Federal)
- E&G (Education and Government)

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Using and Managing the PeopleSoft Online Help

Click the Help link in the universal navigation header of any page in the PeopleSoft Online Help to see information on the following topics:

- What’s new in the PeopleSoft Online Help.
- PeopleSoft Online Help acessibility.
- Accessing, navigating, and searching the PeopleSoft Online Help.
- Managing a locally installed PeopleSoft Online Help website.

PeopleSoft EPM Related Links

My Oracle Support

PeopleSoft Information Portal on Oracle.com

PeopleSoft Training from Oracle University

PeopleSoft Video Feature Overviews on YouTube

Contact Us

Send us your suggestions Please include release numbers for the PeopleTools and applications that you are using.

Follow Us

Get the latest PeopleSoft updates on Facebook.

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Chapter 1

Getting Started with Funds Transfer Pricing

Deferred Processing

Several pages in PeopleSoft Funds Transfer Pricing operate in deferred processing mode. Most fields on these pages are not updated or validated until you save the page or refresh it by clicking a button, link, or tab. This delayed processing has various implications for the field values on the page. For example, if a field contains a default value, any value that you enter before the system updates the page overrides the default. Another implication is that the system updates quantity balances or totals only when you save or otherwise refresh the page.

Oracle's PeopleSoft Products

This documentation refers to these PeopleSoft products:

- PeopleSoft Risk-Weighted Capital.
- PeopleSoft Enterprise Performance Management Warehouse.

Common Elements Used in Funds Transfer Pricing

This section lists common elements used in PeopleSoft Funds Transfer Pricing.

SetID	Provides the ID code for a tableset. A tableset is a group of tables (records) necessary to define your company's structure and processing options.
Effective Date	Establishes the date on which the row in the table becomes effective. It determines when you can view and change the information. Pages and batch processes that use the information use the current row.
Status	Indicates whether a row in a table is active or inactive. You cannot select inactive rows on pages or use them for running batch processes.
Description	Allows free-form text of up to 30 characters that describes what you are defining.
Run Control ID	Identifies specific run control settings for a process or report.
Report ID	Identifies the report.

Program Name	Provides the PeopleSoft EPM program name for which you are running the report or process.
When	Specifies the frequency with which you want to run a process. You can select *Once,Always,* or*Don't.*
Last Run On	Indicates the date on which the report or process was last run.
As Of Date	Indicates the last date for which the report or process includes data.
Scenario ID	Provides an identifier for a specific scenario.
Model ID	Provides an identifier for a model. A model uniquely identifies the types of data that you want to include in a scenario. For example, you might want to review revenue by region—a broad scope. Or, if you use PeopleSoft Activity-Based Management, you might want to review only those activities that relate to a certain product line for certain types of resources—a narrow scope.
Fiscal Year	Specifies the fiscal year for your scenario or process run.
Period	Specifies the accounting period for the object being defined or process being run.
Job ID	Specifies an instance of an engine.

PeopleSoft Funds Transfer Pricing Overview

In today's world of deregulation and increased complexity of products, the financial services industry depends on its funds transfer pricing (FTP) system to maintain competitive pricing and healthy profit margins. PeopleSoft Funds Transfer Pricing calculates your internal cost of funds, or transfer prices. These transfer prices are factored into pricing decisions, and netted against profit margins when measuring the profitability of a product, activity, customer, and the assets and liabilities on your balance sheet.

Funds Transfer Pricing enables you to:

- Separate interest rate risk management from operational or business management.

  It allows the business units' performance to be measured by factors within their control, for example, credit quality, pricing, and product strategy. By centralizing interest rate risk within the treasury (the bank's unit best suited to manage this type of risk), the value of funds (transfer price) is the rate risk neutral value. This neutral value allows the business units to focus on those factors directly within their control without regard for changing interest rates.

- Properly recognize providers and users of funds.

  By deriving a cost for all assets and a value for all liabilities, the profitability of each can be determined independently. Product performance is separated from the funding strategy; that is, asset decisions are separated from liability decisions. This permits business units to evaluate, for example,

the cost of funds used to finance loans, while recognizing the value of funds provided by deposit gatherers. Overall, this enhances the bank's ability to measure profit contributions at the product, organizational, and customer levels.

- Use marginal cost and marginal return concepts in product pricing.

  Using a matched marginal rate transfer price that reflects incremental funding opportunities currently available to the bank shows whether new volumes have a positive spread, eliminating the potential for inadvertent unprofitable growth. A matched marginal funds transfer price approach also ensures that the bank's performance measurement system is consistent, fair, and credible.

- Collaborate with the Asset and Liability Committee (ALCO).

  Funds transfer pricing is the critical link to integrating bank strategies and treasury activities. A funds transfer pricing process should support ALCO initiatives by providing valuable input to pricing decisions and aligning managerial decisions and behavior with current market conditions and ALCO objectives.

PeopleSoft Funds Transfer Pricing Business Processes

This application is part of the PeopleSoft Cash Management business process.

PeopleSoft Funds Transfer Pricing Implementation

PeopleSoft Setup Manager enables you to generate a list of setup tasks for your organization based on the features that you are implementing. The setup tasks include the components that you must set up, listed in the order in which you must enter data into the component tables, and links to the corresponding product documentation.

Other Sources of Information

In the planning phase of your implementation, take advantage of all PeopleSoft sources of information, including the installation guides and troubleshooting information. A complete list of these resources appears in the preface in *Documentation and the Online Library* with information about where to find the most current version of each.

See the product documentation for *PeopleTools: PeopleSoft Setup Manager* and *PeopleTools: PeopleSoft Component Interfaces*

Related Product Documentation

The *PeopleSoft Funds Transfer Pricing Documentation* provides you with implementation and processing information for your Funds Transfer Pricing system. However, additional, essential information describing the setup and design of your system resides in companion documentation. The companion documentation consists of important topics that apply across the PeopleSoft Enterprise Performance Management (EPM) product lines. You should be familiar with the contents of this documentation.

- *PeopleSoft Application Fundamentals for Financial Services Industry Documentation.*

  This documentation provides information needed to implement and process the core functionality used by all the financial services industry applications.

- *Enterprise Performance Management Fundamentals Documentation.*

  This documentation provides information needed to complete the core setup for all PeopleSoft EPM applications. This documentation also describes the system architecture, the mapping of data into the warehouses, and the EPM warehouse foundation tools.

Chapter 2

Navigating in Funds Transfer Pricing

Navigating in PeopleSoft Funds Transfer Pricing

PeopleSoft Funds Transfer Pricing provides custom navigation center pages that contain groupings of folders that support a specific business process, task, or user role.

Note: In addition to the PeopleSoft Funds Transfer Pricing custom navigation center pages, PeopleSoft provides menu navigation, and standard navigation pages.

Pages Used to Navigate in PeopleSoft Funds Transfer Pricing

Funds Transfer Pricing Center

The Funds Transfer Pricing Center custom navigation pages are geared to the person in the organization who is focused on all aspects of funds transfer pricing, including business processes and data setup. This table lists the custom navigation pages that are used to navigate in Funds Transfer Pricing

Page Name	*Navigation*	*Usage*
Funds Transfer Pricing Center	Main Menu, Financial Services Industries, Funds Transfer Pricing Center	Access primary Funds Transfer Pricing Center menu options and activities.
Enterprise Warehouse Setup	Click Enterprise Warehouse Setup on the Funds Transfer Pricing Center page.	Access the Metadata, Business Framework, Engines Setup, Dimensions page.
Models and Parameters Setup	Click Models and Parameters Setup on the Funds Transfer Pricing Center page.	Access the Financial Services Models, Miscellaneous Parameters, Behavioral Models, Balance Segmentation page.
Interest Rate Environment	Click Interest Rate Environment on the Funds Transfer Pricing Center page.	Access Yield Curve Generator page.
Product Portfolio	Click Run Product Portfolio on the Funds Transfer Pricing Center page.	Access the Product Portfolio Setup, Instrument Detail Information, Stratification, Product Forecast page.
Rules	Click Rules on the Funds Transfer Pricing Center page.	Access the Financial Rules, FTP Definitions and Utilities, Funds Transfer Pricing Rules, Analysis and Processing page.

Page Name	*Navigation*	*Usage*
Analysis	Click Analysis on the Funds Transfer Pricing Center page.	Access the Cashflow Modeler, Yield Curve Generator page.
Processing	Click Processing on the Funds Transfer Pricing Center page.	Access the Run Engines, Journal Post Engines page.
Reports	Click Reports on the Funds Transfer Pricing Center page.	Access the Custom, General Support Setup, Product Configuration, Financial Calculation Rules, Funds Transfer Pricing, Yield Curve Rules page.

Chapter 3

Understanding Funds Transfer Pricing

PeopleSoft Funds Transfer Pricing

This section discusses:

- Types of funds transfers.
- Cost-of-funds curves.
- Use of funds transfer prices.

Organizations use a cost-of-funds rate to determine whether the yield on a loan meets profit targets after covering not only the credit risk and operating cost associated with the loan but also an appropriate *funding cost* for the loan. Similarly, organizations assign a*funding credit* to deposits to measure the deposits' net value after taking into account the associated costs. You can use Funds Transfer Pricing to assign an economically appropriate charge or credit for funds for each asset and liability on your balance sheet. Assigning these charges and credits provides two benefits:

- You transfer the interest rate risk of a funding position to the treasury unit where it belongs.
- You provide a value-added incentive structure for the line managers.

Types of Funds Transfers

You can price the following types of funds transfers:

- Ledger balances

  You can use funds transfer pricing for balance sheet accounts where the ledger account is the lowest level of detail or where a single transfer price per ledger account is sufficient. For example, you can calculate the funds transfer price and assign it at the ledger-balance level for fixed assets (such as building and equipment), general accounts (such as cash accounts and prepaid expenses), equity accounts, and indeterminate maturity liability accounts (such as deposit and savings accounts).

- Product balances

  You can use funds transfer pricing when transfer price calculations are based on an individual instrument's financial characteristics, such as repricing period, current balances, remaining term to maturity, payment schedules, rate change schedules, projected cash flows, and behavioral (rate sensitivity) models. PeopleSoft Funds Transfer Pricing analyzes these variables to determine the expected tenor (or term) of the instrument. The funds transfer price is then calculated by matching the tenor of the instrument to the yield curve (market rate) of the same maturity.

- Treasury position balances

  You can use funds transfer pricing for summary-level net positions for foreign exchange or other trading-room positions.

- Forecasted pools

  The forecasting process can create forecasted pools for which you can calculate funds transfer pricing charges and credits.

Regardless of the data source that you use to calculate the funds transfer rates and amounts, you may want to ensure that *all* accounts on the balance sheet are transfer-priced. To this end, PeopleSoft Funds Transfer Pricing includes a reconciliation function that enables you to reconcile instrument balances and treasury position balances to ledger balances in PeopleSoft Financial Management Solutions.

Cost-of-Funds Curves

The funds transfer rate is based on a cost-of-funds curve, which is derived from market rates (yield curves) for products with similar financial characteristics.

The cost of funds curve that you define for a bank or operating unit should be representative of the opportunity cost of funds. Such as, how much the institution would pay for the required funding or how much the institution would receive from excess invested funding at the margin. You may want to set up a cost-of-funds curve that is currency-specific, because interest rate curves vary across currencies.

Typically, the funding center is an asset and liability management unit or treasury department that funds the asset or invests the proceeds of the liability.

Use of Funds Transfer Prices

The funds transfer price is a standard for the buying and selling of funds among business units. You can also use it to measure the profit contribution of each asset and liability or business unit. The funds transfer price is an interest rate representing the value of funds to an institution. It is typically based on current market interest rates adjusted for risk and cost variables that are specific to the institution.

By assigning a transfer price to each component on the balance sheet, you can compare the earnings that result from the use of each asset with alternative uses. In addition, you can compare the cost of each source of funds to alternative sources, and you can measure the profit contribution of each asset or liability.

For example, suppose that you want to measure the monthly profit margin on a mortgage loan with a balance of 100,000.00 USD and an interest rate of 8.5 percent. Here are the amounts:

Interest income = 708 USD (100,000 × .085 × 1/12)

funds transfer pricing base charge = 525 USD (matched maturity marginal cost of funds)

funds transfer pricing adjustment = 25 USD (cost of payoff option on the loan)

Spread = 158 USD

Net interest margin = 1.896% (158 × (12/1) / 100,000)

PeopleSoft Funds Transfer Features

With Funds Transfer Pricing you can:

- Calculate a funds transfer pricing base rate:
  - For new instruments.
  - For instruments that are extended or renewed, using a blend of the old rate and the current interest rates charged for these types of products.
  - At the repricing anniversary for variable rate loans.
  - At the end of the reporting period for all instruments whose funds transfer pricing rate is reset each reporting period.
  - When funds transfer pricing repricing events are triggered by an external system.
- Calculate transfer prices on ledger account balances on detailed instrument balances, or on treasury position balances.
- Choose from among several methodologies to derive the maturity when calculating funds transfer pricing rates based on matched maturity funding:
  - *Strip funding*

    This approach matches the projected cash for the instrument in each time period, with a specific cost of funds rate for that cash flow. The funds transfer pricing rate for the instrument is then calculated by weighting the cost of funds rate for the cash flow in each time period by the term of the cash flow.
  - *Duration matching*

    This approach calculates the maturity of a pool of instruments. It uses the standard algorithms for calculating the cash flow duration, modified duration, or effective duration of the projected cash flows. The duration measure that you select is then used as the term for matching the maturity of the instruments. Duration matching is particularly effective when transfer pricing pools of relatively homogeneous instruments.
  - *Average life*

    This approach calculates the effective term of an amortizing product. Average life is the period of time required for one half of the principal balance to be repaid based on projected cash flows.
  - *Repricing frequency*

    For variable rate products, the primary interest rate exposure when funding instruments is limited to the length of time it takes for the instrument to reprice—that is, the interest rate is adjusted to current market rates. For these products, you can match the term used to calculate the funds transfer pricing rate to the repricing period of the underlying instrument. The funds transfer pricing system automatically resets the funds transfer pricing rate at the same time intervals and uses the same term as the instrument's repricing schedule. The repricing period can be set based on a periodic repricing frequency or specific scheduled repricing dates.
- Transfer price based on user-defined term or rates.

  In addition to using one of several matched maturity concepts, Funds Transfer Pricing gives you the flexibility to specify terms or rates to be used for transfer pricing. You can use the contractual term to

maturity, an arbitrary term that is user-defined, or a specific funds transfer pricing cost of funds rate to be used for a set of instruments or ledger accounts.

- Use option adjusted costs and option adjusted spreads to calculate transfer prices.

  This enables you to accurately price the volatility of financial products with embedded options, such as prepayment options on loans.

- Transfer price instruments originated with intent to sell by applying a term based on their expected holding period.

- Model durations for asset and liability products of indeterminate maturity (such as demand deposits, savings, NOW accounts, equity lines, bank cards) and balance sheet accounts (such as receivables, float and reserves, fixed assets, payables, equity) for more accurate transfer pricing.

- Apply any number of adjustments to the basic funds transfer pricing rate.

  For example, you can apply adjustments for liquidity, embedded options, or incentives to the line managers. The adjustments can be a fixed rate, or a fixed amount, and are calculated separately from the base funds transfer pricing rate, so they can be easily identified and reported. You can also apply event-based funds transfer pricing adjustments—that is, define a funds transfer pricing adjustment rule that is only applied if a constraint is satisfied.

- Apply a funds transfer pricing adjustment for commitment period rate lock options that enable the customer to receive the minimum interest rate available during a commitment period.

  The commitment period rate lock adjustment is calculated as the difference between the minimum posted rates available during the commitment period, and the actual rate that was in effect on the start date.

- Calculate the cost of allocated capital using the cost of funds rate for equity.

  The cost of capital can be calculated and reported separately from the funding costs of an instrument or ledger account balance.

- Use the Stratification Engine to group millions of individual instruments with the same financial characteristics into a much smaller number of instrument pools.

  This dramatically improves the processing time for calculating the funds transfer pricing rates. It also enables you to use advanced analytics and modeling techniques to calculate the effective maturity of a large number of instruments within acceptable processing time windows.

- Perform multiple modeling (what-if analyses), for example using behavioral models (interest rate sensitivity) or product pricing models.

- Apply break fund charges for loans that prepay, as well as for cancelled commitments.

  Apply a onetime break fund assessment or accrue break fund charges over the term of the loan. Allow the user to define the amortization period for the break fund charges.

- Reset the funds transfer pricing rule, funds transfer pricing base rate and funds transfer pricing adjustments for existing instruments whose cash flow characteristics have changed—for example, when a loan converts from a variable to a fixed rate loan.

- Transfer price forward commitments.

These are typically large, fixed rate commercial credits that are usually match funded (guaranteed rates) prior to the booking of the transaction. Because of their size, these loans are literally matched at the margin, and the rate is locked in during negotiations. These transactions are therefore funded and transfer priced as of their commitment date, using a forward rate curve.

- Calculate transfer prices for forecasted balances.

  You can calculate funds transfer pricing charges and credits for forecasted balances during planning and simulation runs.

- Segment transfer pricing balances and apply different transfer price rates based on varying volatilities.

  Use balance segmentation for indeterminate maturity balances, such as checking accounts, accounts receivable, credit card balances. The core portion of savings accounts may be considered stable, with an funds transfer pricing rate based on a medium or long term cost of funds, while the remaining portion is considered volatile, with an funds transfer pricing rate based on a shorter term cost of funds.

- Use effective dating for assumptions, which provides you with a history of assumptions to help you track rules and make inquiries concerning results.

- Assign transfer pricing rules based on account tree nodes.

  For example, if the other assets node included multiple ledger accounts, you could choose to apply a funds transfer pricing rule to the tree node that represents all other assets, rather than to each ledger account individually.

- Perform multiple dimensional analyses of profitability.

  For example, you can use Funds Transfer Pricing to evaluate product profitability for each customer segment, thereby providing insights into bundling strategies and loss leadership relationships.

Matched Maturity Marginal Funds Transfer Pricing

PeopleSoft Funds Transfer Pricing supports the matched maturity marginal funds transfer pricing methodology, which is based on the concept that a centralized unit, the treasury, serves as a conduit for all of the institution's funds using current market marginal funds costs. Under this system, each business unit sells its liabilities at appropriate transfer prices to the treasury, and each business unit buys the funds required to support its assets at appropriate transfer prices from the treasury. In effect, each business unit is treated like a fully matched book: assets receive a transfer price charge that reflects their maturity and liquidity characteristics (cash flows, repricing, origination date, maturity), while liabilities receive a transfer price credit that reflects the market value of funds with those same characteristics.

One of the primary benefits of this methodology is that each component of the net interest margin can be measured independently:

- Asset or lending spread is the difference between the actual yield on assets and their matched cost for purchased funds from the treasury.

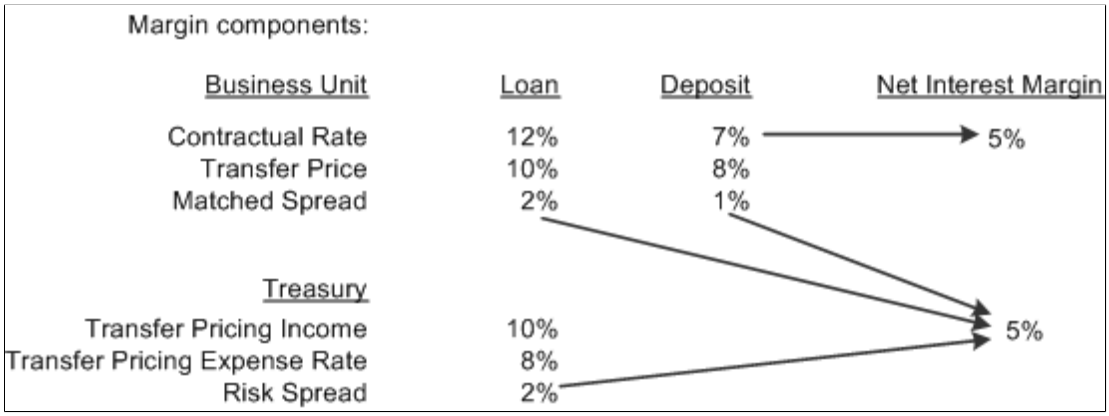
  This spread measures the economic return on assets, independent of actual funding sources.

- Liability or funding spread is the difference between the actual cost of deposits and the credit for sale of funds to the treasury.

This spread measures the opportunity value of deposit funds independent of their use.

Image: Funds Transfer Pricing Margin Components

To illustrate, assume that the bank has issued a short-term time deposit costing 7% and funded a long term loan yielding 12%. The deposit costs 100 basis points (bps) less than purchased funds with a similar maturity, and the loan has a yield 200 bps higher than the bank would pay for funds of the same maturity. This graphic illustrates the margin components:



The end result is that the spreads reported on assets and liabilities are more stable, reflecting the true economic contributions of these products, while the income variability resulting from changing interest rates is isolated in the treasury, where it can be best managed on a consolidated basis.

Integration with PeopleSoft EPM Warehouses

PeopleSoft Funds Transfer Pricing draws data from PeopleSoft EPM warehouses for its processing, and posts results back to the warehouse for reporting. After you load the data from your source systems into the Operational Warehouse Store (OWS), the Extract, Transform, and Load (ETL) process moves it into the Operational Warehouse - Enriched (OWE). You can run another set of ETL maps to populate the Multidimensional Warehouse (MDW) tables, which are used by Business Intelligence reporting tools to create reports.

See "Financial Performance Measures Process *(PeopleSoft EPM 9.1: Applications Fundamentals for Financial Services Industry)*".

Funds Transfer Pricing Engine Output Tables

The following are output tables specific to PeopleSoft Funds Transfer Pricing processing:

- FTP_RECALC_R00: Stores the components of the funds transfer pricing recalibrated rate.
- FTP_RECALC_TBL: Stores the components of the cash flows used in the calculation of the funds transfer pricing recalibrated rate.
- FTP_FCST_F00: Stores funds transfer pricing charges per accounting period for forecasted pools output.

- FI_FCSTRATE_R00: Stores the funds transfer pricing rate for historical and forecast instruments/ pools.
- FI_IFTPRATE_R00: Stores funds transfer pricing rates for instruments.
- FI_IFTPADJ_R00: Stores funds transfer pricing adjustments.
- FI_IBFCHRG_R00: Stores break fund charges output from the FTP_BFND application engine .
- FI_IFTPBFND_R00: Stores break fund rules.
- FTP_CALC_IN_F00: Stores funds transfer pricing charge or credit amounts for instruments output from the FTP_INST application engine.
- FTP_CALC_AC_F00: Stores funds transfer pricing charge or credit amounts for PF ledger accounts output from the FTP_ACCT application engine.
- FTP_CALC_PS_F00: Stores funds transfer pricing charge or credit amounts for treasury positions output from the FTP_TRPS application engine.
- FTP_CALC_IP_F00: Stores funds transfer pricing charge or credit amounts for forecasted instrument pools output from the FTP_FPOOL application engine.
- FI_POOLFTP_R00: Stores funds transfer pricing rates for forecasted instrument pools.
- FTP_CCRATE_F00: Stores current period cost of capital rates to be used when calculating funds transfer pricing charges for RWC allocations for an instrument, account, or position.
- FTP_RCN_F00: Stores funds transfer pricing charges or credits for reconciliation amounts, (differences between product or PF Ledger balances and position or PF Ledger balances).
- FTP_CALC_BL_F00: Stores funds transfer pricing charge or credit amounts per Accounting Period for Financial Instruments output from the FTP_INST application engine.

Chapter 4

Understanding Funds Transfer Pricing Processes

Application Engines and Jobstreams

This section discusses:

- Calculation types.
- Calculation library.
- Jobstreams.
- Scenario types and economic assumptions.
- Application engines.

The two primary Funds Transfer Pricing application engines—the FTP_RATE and FI_FCSTFTP application engines—use interest rates for their processing. When run, these application engines call the rate environment (Yield Curve environment) for funds transfer pricing rates. These application engines also call the Cash Flow application engine and the financial calculator.

This application has several batch programs or application engines that process the rules and calculate funds transfer pricing rates, credit, and charge amounts.

Calculation Types

Here are the calculations that PeopleSoft Funds Transfer Pricing uses:

```
FTP Base Rate = Balance Amount * FTP Rate * Accrual Factor

FTP Adjustment = Balance Amount * FTP Adjustment Rate * Accrual Factor

FTP Charges for allocated RWC = RWC Amount for Instrument * FTP Cost of Capital Rat⇒
e * Accrual Factor
```

Note: The funds transfer pricing adjustments are assessed separately from the base funds transfer pricing charges, so that it is possible to report them separately from any adjustments for incentives, embedded options, liquidity, or risk considerations.

Calculation Library

The Calculation Library is a collection of related PeopleCode functions that are modifiable for any proprietary methodologies that your organization uses. Several funds transfer pricing application engines use these PeopleCode functions when calculating funds transfer pricing rates, and break funding charges.

The functions are all stored on the FTP_CALC_AET state record. The calculation routines interface with the cash flow generator and the curve evaluator support modules.

The Calculation Library is used by FTP_RATE, FTP_BFND, FTP_ACCT, FTP_TRPS, and FI_FCSTFTP application engines.

Jobstreams

Note: The jobstreams listed are for the sample data PeopleSoft Funds Transfer Pricing delivers, and you may choose to create your own jobstreams. The following table lists the jobstreams that are delivered with PeopleSoft Funds Transfer Pricing and the application engines used within those jobstreams. You can run any of these jobstreams by going to the Run application engines central navigation page in the Funds Transfer Pricing Center, then select the Run Jobstreams link.

Process	*Description*	*Jobstream*	*Application Engines Used*
Daily	Computationally intensive, so run jobstream nightly to calculate funds transfer pricing rates for new or repriced instruments.	FTPDAILY	FTP_RATE FTP_BFND MERGE
Monthly	Run jobstream for fiscal year or accounting period.	FTPMONTHLY	FTP_RATE FTP_CCRATE FTP_BFND MERGE FTP_INST FTP_ACCT PF_MULT_CUR POST EDIT MERGE
Account Charges	Run jobstream for account charges at end-of reporting period.	FTP_ACCT	FTP_ACCT
Other Instrument Balances	Run jobstream for instrument balances as needed.	FTP_BAL	FTP_BAL
Break Funding	Run jobstream for break funding charges daily.	FTP_BFND	FTP_BFND
Cost of Capital	Run jobstream for cost of capital at the end of reporting period.	FTP_CCRATE	FTP_CCRATE

Process	*Description*	*Jobstream*	*Application Engines Used*
Forecasting	Run jobstream for multiple historic or future reporting periods.	FTP_FCAST	FTP_FRATE FTP_CCRATE MERGE FTP_FPOOL MERGE
Forecasted Pools	Run jobstream for forecasted pools as needed.	FTP_FPOOL	FTP_POOL
Forecasted Pools Rate	Run jobstream for forecasted pools rates as needed.	FI_FCSTFTP	FI_FCSTFTP
Instrument Charges	Run jobstream for instrument charges at the end of the reporting period.	FTP_INST	FTP_INST
End of Period for Products	Run jobstream for products at the end of the period.	FTP_PRODS	FTP_CCRATE FTP_RATE FTP_BFND FTP_INST
Rate Process	Run jobstream daily.	FTP_RATE	FTP_RATE
Charges for Positions	Run jobstream for treasury position charges at the end of the reporting period.	FTP_TRPOS	FTP_TRPOS

Scenario Types and Economic Assumptions

This table details the scenario types and economic assumptions for the jobstreams:

Functional Objective	*Scenario Type*	*Economic Assumption*	*Jobstream*
FTP Rate	Historical	Market Rates	Rates, Breakfunding
FTP Charge	Historical	Market Rates	Cost of Capital, Instrument, Treasury Positions, Accounts
Post (to ledger)	Historical	Market Rates	Post
Forecast Rates	Forecast	Market Rates, Deterministic	Forecast Rate
Forecast Charges	Forecast	Market Rates, Deterministic	Forecast Rate, Forecast Pool Charges

Application Engines

This table lists the application engines used within the jobstreams:

Application Engine ID	*Input Rules/Tables*	*Output Tables*	*Calculates*
FTP_RATE	FI_FCALC_DEFN FTP_RULE_TBL FTP_BFND_TBL FI_INSTR_F00 FI_IBAL_R00	FI_IFTPRATE_R00 FI_IFTPADJ_R00 FI_IFTPBFND_R00 FI_IBFCHRG_F00 FI_FTP_BSEQ_IN_F00	Funds transfer rates for instruments based on funds transfer pricing rules assigned on the Financial Calculation Rules page.
FTP_CCRATE	FI_CONFIG_TBL FI_CURR_COF_TBL	FTP_CCRATE_R00	Rates used to transfer price the cost of capital allocated by PeopleSoft RWC. PeopleSoft RWC allocates capital based on the risk of a given instrument, ledger account, or treasury position. PeopleSoft Funds Transfer Pricing is then used to calculate the associated cost for use of those capital funds.
FTP_BFND	FI_FCALC_BF_SEQ FI_IFTPBFN_R00 FI_ITRNHIST_R00	FI_IBFCHRG_R00	Break fund charges for instruments due to loan payoffs or cancelled draw downs, or early redemptions of time deposits.
FTP_INST	FI_BSR_DEFN FI_BSR_PROD_SEQ FI_INSTR_F00 FI_IBAL_R00 FI_IFTPRATE_R00 FI_IFTPADJ_R00 FI_IBFCHRG_R00	FTP_CALC_IN_F00 FTP_BS_PROD_F00	Charges or credits for instrument balances. This application engine also calculates total balances processed per basis ID, weighted average funds transfer pricing rate per basis ID, accrued break funding charges, and adjustments.
FTP_ACCT	FI_BSR_DEFN FI_BSR_RCN_SEQ PF_LEDGER_F00 PF_LED_ADB_F00 FTP_BS_PROD_F00 FTP_BS_FRPS_F00	FTP_CALC_AC_F00 FTP_RCN_F00 FTP_BSEQ_AC_F00	Charges and credits at the ledger account level. This application engine also reconciles product detail and position balances to ledger accounts and calculates funds transfer pricing charges for reconciliation amounts.

Application Engine ID	*Input Rules/Tables*	*Output Tables*	*Calculates*
FTP_TRPS	FI_BSR_DEFN FI_BSR_TRPS_SEQ FI_TRPOS_F00	FTP_CALC_PS_F00 FTP_BS_TRPS_F00	Charges or credits for treasury positions. This application engine also calculates total balances processed per basis ID and weighted average funds transfer pricing rate per basis ID.
FI_FCSTFTP	FI_FCALC_DEFN FTP_RULE_TBL FI_INSTR_F00 FI_IBAL_R00 FI_FCST_F00 FI_ELEMENT_F00	FI_POOL_CF_R00 FTP_BSEQ_IN_F00 FI_POOLINST_R00 FI_FCSTRATE_R00 FTP_FCST_F00	Rates for forecasted instrument pools. Performs many of the same functions as the FTP_RATE application engine at the instrument-pool level rather than at the instrument level.
FTP_FPOOL	FI_BSR_DEFN FI_BSR_PROD_SEQ FI_INSTR_F00 FI_IBAL_R00 FI_IFTPRATE_R00 FI_IFTPADJ_R00 FI_IBFCHRG_R00	FTP_CALC_IP_F00	Charges or credits for forecasted instrument pools during planning and simulation processing. This application engine performs the same functions as FTP _INST at the instrument-pool level rather than at the individual instrument level.

Output Tables

The Funds Transfer Pricing application engines use the following output tables to store data:

Table	*Description*
FI_IFTPRATE_R00	Stores funds transfer pricing rates for instruments.
FI_IFTPADJ_R00	Stores funds transfer pricing adjustments.
FI_IBFCHRG_R00	Stores break fund charges—output from FTP_BFND.
FI_IFTPBFND_R00	Stores break fund rules.
FTP_CALC_IN_F00	Stores funds transfer pricing charge or credit amounts for instruments—output from the FTP_INST application engine.

Table	*Description*
FTP_CALC_AC_F00 FTP_CALC_BL_F00	Stores funds transfer pricing charge or credit amounts for PF ledger accounts—output from the FTP_ACCT application engine. ADD Stores funds transfer pricing charge or credit amounts for TERTIARY INSTRUMENT BALANCE—output from the FTP_BAL application engine.
FTP_CALC_PS_F00	Stores funds transfer pricing charge or credit amounts for treasury positions—output from the FTP_TRPS application engine.
FTP_CALC_IP_F00	Stores funds transfer pricing charge or credit amounts for forecasted instrument pools—output from the FTP_FPOOL application engine.
FI_FCSTRATE_R00	Stores funds transfer pricing rates for forecasted instrument pools.
FTP_CALC_IP_F00	Stores funds transfer pricing charge or credit amounts for forecasted instrument pools.
FTP_CCRATE_F00	Stores current period cost of capital rates to be used when calculating funds transfer pricing charges for PeopleSoft Risk-Weighted Capital allocations for an instrument, account, or position.
FTP_RCN_F00	Stores funds transfer pricing charges or credits for reconciliation amounts (differences between product/PF ledger balances, and position or PF ledger balances).
FI_RCN_BS_F00	Stores reconciliation differences found by the reconciliation process.

Chapter 5

Setting Up Funds Transfer Pricing Parameters and Utilities

Setting Up the Funds Transfer Pricing Structure

This section discusses how to:

- Define funds transfer pricing adjustment types.
- Define currency cost of funds.
- Set up funds transfer pricing rule templates.

Pages Used to Set Up the FTP Structure

Page Name	*Definition Name*	*Navigation*	*Usage*
FTP Adjustment Type	FTP_ADJTYPE_TBL	Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, Adjustment Types	Create the funds transfer pricing adjustment types that are applied to the funds transfer pricing base rate.
Cost of Funds Curves - Currency Cost of Funds	FI_CURR_COF_TBL	Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, Cost of Funds Curves, Currency Cost of Funds	Establish the cost of funds that PeopleSoft Funds Transfer Pricing uses in rate processing.
Cost of Funds Curves - Notes	FI_CURR_COF_NOTES	Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, Cost of Funds Curves, Notes	Enter notes that relate to the cost of funds curve.
FTP Rule Template	FTP_DEFAULT_TBL	Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, Rule Templates	Create templates with default settings to create a funds transfer pricing rule.

FTP Adjustment Type Page

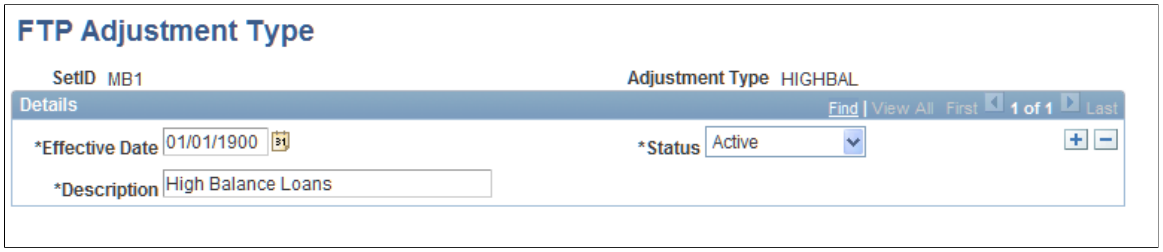
Use the FTP Adjustment Type page (FTP_ADJTYPE_TBL) to create the funds transfer pricing adjustment types that are applied to the funds transfer pricing base rate.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, Adjustment Types

Image: FTP Adjustment Type page

This example illustrates the fields and controls on the FTP Adjustment Type page. You can find definitions for the fields and controls later on this page.



Enter the effective date, status, and description for the adjustment type.

Cost of Funds Curves - Currency Cost of Funds Page

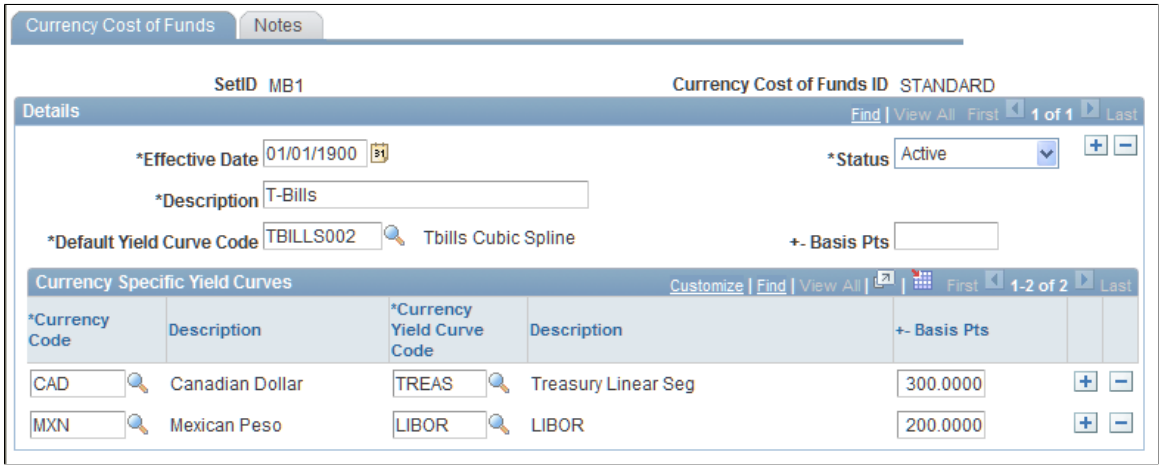
Use the Cost of Funds Curves - Currency Cost of Funds page (FI_CURR_COF_TBL) to establish the cost of funds that PeopleSoft Funds Transfer Pricing uses in rate processing.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, Cost of Funds Curves, Currency Cost of Funds

Image: Cost of Funds Curves - Currency Cost of Funds page

This example illustrates the fields and controls on the Cost of Funds Curves - Currency Cost of Funds page. You can find definitions for the fields and controls later on this page.



Specify a default yield curve code for all transactions in currencies that are not listed in the grid. Use the Basis Pts (basis points) field to enter a margin for the system to add or subtract from the rate.

You can set up currency-specific yield curves to specify yield curves other than the defaults for transactions in the listed currencies, or set up the currency-specific yield curves. Select a currency code and specify a currency yield curve code. In the Basis Pts field, enter the margin for that code.

FTP Rule Template Page

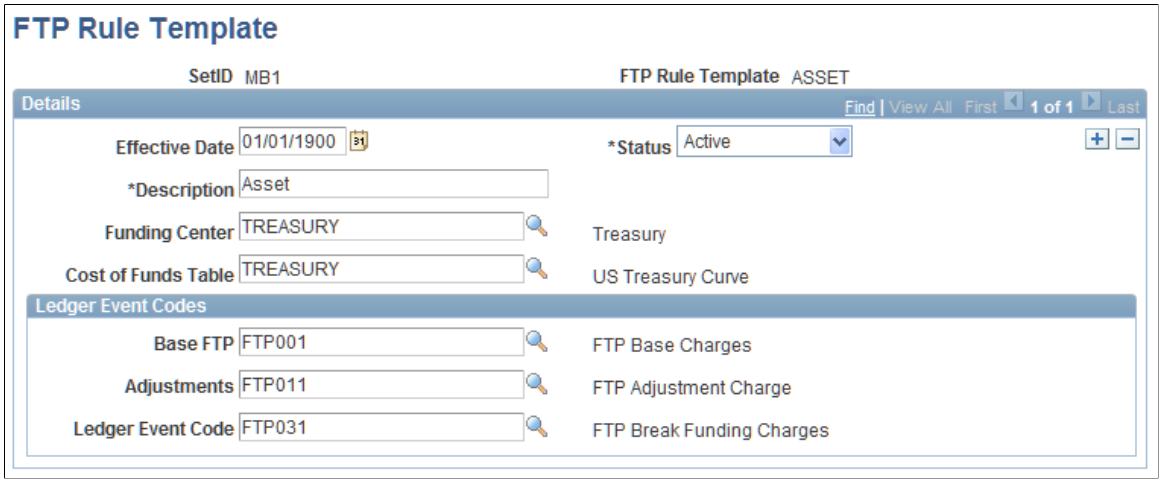
Use the FTP Rule Template page (FTP_DEFAULT_TBL) to create templates with default settings to create a funds transfer pricing rule.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, Rule Templates

Image: FTP Rule Template page

This example illustrates the fields and controls on the FTP Rule Template page. You can find definitions for the fields and controls later on this page.



Funding Center Enter the department that receives the offsetting account entry for the funds transfer pricing charge or credit.

Cost of Funds Table Enter the cost of funds to be applied to this transfer price.

Base FTP Enter the Performance Ledger account to which the system posts the base funds transfer pricing charge or credit.

Adjustments Enter the performance ledger account to which the system posts the adjustments.

Ledger Event Code Enter the performance ledger account to which the system posts break funding adjustments.

Copying Funds Transfer Pricing Rules

To facilitate implementation, you can use the FTP Rule Copy page to duplicate existing rules and slightly modify them.

This section discusses how to copy existing rules.

Page Used to Copy Funds Transfer Pricing Rules

Page Name	*Definition Name*	*Navigation*	*Usage*
FTP Rule Copy	FTP_RULE_COPY	Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, FTP Rule Copy	Copy an existing rule to create a new rule that has similar characteristics.

FTP Rule Copy Page

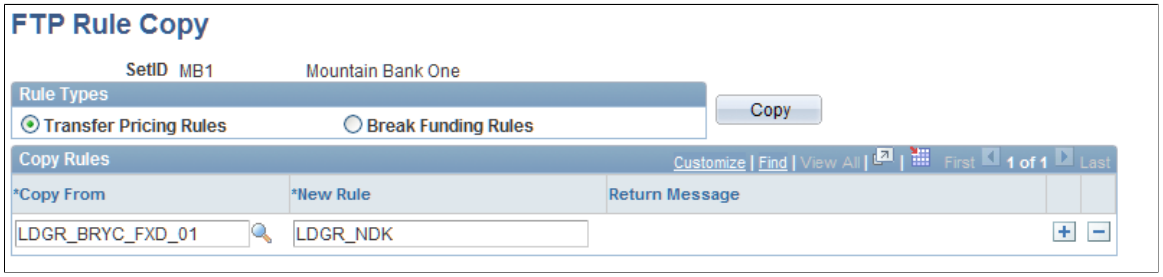
Use the FTP Rule Copy page (FTP_RULE_COPY) to copy an existing rule to create a new rule that has similar characteristics.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, FTP Definitions and Utilities, FTP Rule Copy

Image: FTP Rule Copy page

This example illustrates the fields and controls on the FTP Rule Copy page. You can find definitions for the fields and controls later on this page.



Specify the rule as a transfer pricing rule or break funding rule. Select the rule that you want to copy, and then enter the new name in the New Rule field. Click theCopy button. The results appear in theReturn Message field.

Chapter 6

Setting Up Funds Transfer Pricing Rules

Understanding Funds Transfer Pricing Rules

This section discusses:

- Processing rates.
- Repricing events.
- Stratification rules for rate processing.
- Calculating the base rate.
- Tenor algorithms.
- Strip funding.
- Specifying adjustments.
- Renewed or extended instruments.

The funds transfer pricing rules process specifies the methodologies and calculations used to derive the funds transfer rates and amounts. You set up the funds transfer rules for ledger account balances (for example, cash, prepaid expenses, and fixed assets), product (instrument) principal balances, product (instrument) other balances, or treasury position balances. Define as many funds transfer pricing rules as are necessary for the different methodologies and balance types you use. Funds transfer pricing rules are designed to be reusable—that is, you can attach them to one or more products, ledger accounts, or treasury positions.

Note: Credit amounts should be entered as a negative amount. In the ledger, revenues are negative values, expenses are positive values.

Processing Rates

The FTP Rate application engine does the following:

- Identifies instruments to process based on the run control parameters and FTP business rules.

  When processing for a reporting period, the FTP Rate application engine processes all active and open instruments whose commitment date or start date is less than or equal to the last day of the accounting period, and whose end date is after the first day of the accounting period.

- Identifies and assigns the funds transfer pricing rule and break funding rule to a new instrument, according to the definitions in the Product Portfolio Definition, Product Setup pages. The information on funds transfer pricing rules assigned to a given instrument is stored in FTP_RULE_TBL.

The funds transfer pricing rate for each balance segment is stored in FTP_BSEQ_IN_F00. The information on break funding rules assigned to a given instrument is stored in FTP_BFND_TBL.

- Identifies any funds transfer pricing adjustments that should be calculated for a given instrument, as defined in the funds transfer pricing rules, and stores adjustment information in the FI_IFTPADJ_R00 table.

The FTP Rate application engine identifies instruments requiring an funds transfer pricing rate calculation. First the Cash Flow Generator application engine calculates the cash flows. Then the financial calculator application engine calculates duration measures (such as average life, or effective duration). The FTP Rate application engine then uses the duration measures, along with the specified cost of funds curve, and the start date or commitment date, to obtain the appropriate yields from the interest rate environment. The yield from the interest rate environment is used as the basis for the funds transfer pricing base rate calculation.

Related Links

"Entering Financial Instrument Data *(PeopleSoft EPM 9.1: Applications Fundamentals for Financial Services Industry)*"

"Setting Up Product Dimensions *(PeopleSoft EPM 9.1: Applications Fundamentals for Financial Services Industry)*"

Repricing Events

There are several types of events in an instrument's life cycle that can initiate repricing:

- When an instrument is new to the system—that is, there is no funds transfer pricing rate record in the FI_IFTPRATE_R00 table for the instrument.

  For many fixed rate types of instruments, the funds transfer pricing rate is set only once, when the instrument is new. The same rate is then applied each processing period.

- For products that have the Reset FTP Rate Each Period option selected on the Financial Calculation Rules page.

  The funds transfer pricing rate is recalculated during every processing period.

- For variable rate products, whose tenor you may want to base on the instrument's repricing frequency.

  When you choose the repricing frequency funds transfer pricing tenor setting (in the Financial Product Definition pages), the funds transfer pricing rate program calculates and stores the next funds transfer pricing reprice date based on the instrument's repricing schedule. The funds transfer pricing rate is automatically recalculated at the repricing anniversary.

- When there is a funds transfer pricing reset event.

  In some cases, you may want to have an external system trigger a funds transfer pricing repricing event.

  You can do this by having the source system and extract-transform-load process generate a funds transfer pricing reset event in the FI_ITRNHST_R00 table for the instrument. The FTP Rate process automatically scans the FI_ITRNHST_R00 table looking for funds transfer pricing reset events with

a transaction code of 060, and resets the funds transfer pricing base and adjustment rates for all those instruments.

Stratification Rules for Rate Processing

When processing instruments, the FTP Rate application engine can use the same general stratification rule as the monthly Financial Performance Measurement program (FPM) or a stratification rule specific to funds transfer pricing. The FPM stratification rule usually pools instruments on a monthly basis for cash flow processing. On the other hand, the stratification rule specific to funds transfer pricing allows discrete pooling based on start date or commitment date, yielding a more accurate funds transfer pricing rate for instruments whose rate changes significantly during the month.

Because of the large volumes of data processed by the FPM program, it may be desirable to stratify the instruments into as small a number of pools as possible, to improve processing time. However, for funds transfer pricing rate setting purposes, it may be desirable to run the stratification process so that the pools created are more tightly stratified and stratified on more attributes than are needed for the FPM process. For example, you may pool the instruments based on monthly start date and end date strata, for an FPM run. However, for a funds transfer pricing rate setting, it may be critical to maintain discrete start dates so that the funds transfer pricing rate reflects the rates in effect on the specific start date for each instrument. Because the FTP Rate process only processes new or repricing instruments, the volume of data that it needs to process is much less than the FPM process, and you can typically afford to define much tighter stratification rules for the FTP process than you use for the FPM process.

Calculating the Base Rate

You define the rules for calculating the base rate using balance segments. Balance segments are a way of calculating the base rate by using a combination of methodologies, yield curves, or terms, for a specific portion of the balance.

Balance segmentation is commonly used for pricing indeterminate maturity products such as demand deposits, savings, NOW, and money market accounts. Historical trends of deposit patterns suggest that balances in these types of accounts consist of both core (stable) and non-core (volatile) funds. Core funds refer to the minimum balances that tend to be retained by the customer on a long-term basis. At the macro level, these funds can be used as a relatively reliable source of medium to long-term funding for the bank. Non-core or volatile funds refer to the remaining balance, which fluctuates over a short time horizon, and should not be priced as a long-term source of funds. When pricing these types of accounts, you may want to calculate the funds transfer pricing rate by assigning a medium to long-term rate for the core segment of funds and a much shorter term rate for the volatile or non-core percentage of balances. You can easily set up a funds transfer pricing rule that enables this type of rate calculation by using the balance segmentation.

Note: You can set up balance segmentation by percentage of the balance or by absolute dollar amount.

Percent of Balance Segmentation

When you define balance segments as a percentage of the balance, the calculation is very straightforward: the base funds transfer pricing rate is calculated as the sum of all of the balance percentages for each segment multiplied by the funds transfer pricing rate for that segment. The following is an example of an funds transfer pricing rule with two balance segments, both defined as a percentage of the balance:

Balance Segment #1: 50% of balance using a fixed funds transfer pricing rate of 8%.

Balance Segment #2: 50% of balance using a fixed funds transfer pricing rate of 2%.

Base funds transfer pricing rate = (.50 * .08) + (.50 * .02) = 5%

You can specify as many balance segments per funds transfer pricing rule as you need, however, the total for all balance segments must equal 100 percent.

Absolute Amount Segmentation

When you define one or more balance segments and use an absolute balance amount, the calculation becomes complex. The base funds transfer pricing rate calculation depends on the total amount of balances being processed at one time by that funds transfer pricing rule. The sequence in which the balance segment rules is specified on the funds transfer pricing rule is significant. Each balance segment rule is applied against the remaining balance. For each segment, the remaining balance is the starting balance less any balance amounts processed by prior balance segments. The following examples illustrate how the same funds transfer pricing rule that uses absolute balance segment amounts, can arrive at two different base funds transfer pricing rates, when all factors remain constant except the total amount of balances being processed. Assume the following funds transfer pricing rule with two balance segments where the first balance segment uses an absolute balance amount:

Balance Segment #1: 200,000,000 USD using a fixed funds transfer pricing rate of 8%.

Balance Segment #2: 100% of remaining balance using a fixed funds transfer pricing rate of 2%.

Example 1:

Total balances processed: 500,000,000 USD

Base funds transfer pricing rate = (200,000,000 USD * .08) + (300,000,000 USD * .02) / 500,000,000 USD = 4.4%

Example 2:

Total balances processed: 150,000,000 USD

Base funds transfer pricing rate = (200,000,000 USD * .08) + (0 USD * .02) / 200,000,000 USD = 8%

There are several considerations when using absolute amounts:

- The funds transfer pricing balance segments are taken into account when calculating the base funds transfer pricing rate for a given set of ledger accounts, treasury positions, or financial instruments.

  For ledger accounts, treasury positions, and for some financial products, the funds transfer pricing rate is recalculated every processing period. In these situations, you can use absolute amount balance segments with predictable results. However, the funds transfer pricing rate for many types of financial products is typically calculated only once, when the instrument is booked or occasionally, when it reprices. In these situations, the total amount of instrument balances (for which you are calculating an funds transfer pricing rate) fluctuate each time that you run the FTP Rate process , resulting in different base funds transfer pricing rates. You should use absolute amounts for balance segments when transfer pricing ledger accounts, treasury positions, or financial products whose funds transfer pricing rate is reset each processing period.

- The final base funds transfer pricing rate calculation may be influenced by the total balances being processed.

For ledger accounts and treasury positions, the balance sheet rules control the base funds transfer pricing rate calculation; therefore, the total amount of balances being processed in a given iteration is the sum of balances grouped by the balance sheet rule and the transaction currency code. For financial products, the financial calculation rules control the base funds transfer pricing rate calculation; therefore, the total amount of balances being processed in a given iteration is the sum of the balances grouped by the financial calculation funds transfer pricing rule and currency code. If the total amount of balances processed is less than the amount specified on the balance segment, then balance segments are applied in the order that they are specified on the funds transfer pricing rule, and each balance segment is applied to the remaining balance after the previous balance segment rates have been processed.

- The balance segment amount is specified in terms of base currency units.

  For foreign currency balances, the base currency equivalent balance amounts are used when calculating the base funds transfer pricing rate.

Tenor Algorithms

One of the goals of an effective funds transfer pricing system is to calculate the funds transfer rate so that the rate is based on the current interest rate structure representing the marginal cost of funds of similar liquidity and maturity. Funds Transfer Pricing enables you to select one of several methods for calculating the appropriate maturity (or tenor) to use for an instrument. The tenor refers to the length of time that an instrument is available as either a source or use of funds.

Set the tenor algorithm when you specify the term calculation code in the FTP Base Rate page. The tenor can be set a number of ways. If the rule is for a ledger account or a position, you are prompted for the rate in which case tenor isn't relevant or you are directly prompted for the tenor. The term, calculation code, is used for products that have a greater number of options for calculating the tenor.

Basis of the Funds Transfer Pricing Price	***Resulting Tenor***
Fixed Term (this is used for account and position)	A user-defined term specified when you set up the funds transfer pricing rule. For example, you may want to transfer price your ledger account for depreciated property using the current marginal cost of funds rate for 20 years (that is, the tenor is set to 20 years).
Term to Maturity	Calculated as the number of days in the term to maturity. FI_ TERM_MATURITY field on the instrument table.
Remaining Term to Maturity	Calculated as the number of days between the current as of date and the term to maturity. FI_TERM_MATURITY field on the instrument tables.
Effective Duration Cash Flow Duration Modified Duration Average Life	Calculated by the cash flow generator. This program generates the projected cash flows for the instrument, and then applies a financial algorithm to derive the tenor.

If the tenor is based on the repricing period, there are two possible ways to set the repricing period and the tenor, depending on the characteristics of the instrument: The repricing period can be based on either

a periodic schedule (for example, every six months or annually), or a rate change schedule (that is, set to specific dates). In all cases, the tenor is calculated by the difference between the next repricing date and the last repricing date.

If the funds transfer price is based on strip funding, then the projected cash flow for the instrument in each time period is matched with a specific cost of funds rate for that cash flow. The funds transfer pricing rate for the instrument is then calculated by weighting the cost of funds rate for the cash flow in each time period by the term of the cash flow.

Strip Funding

There are several methods to transfer price fixed rate products, including strip funding. Strip funding is the most accurate. Strip funding uses the weighted average cost of funds to calculate funds transfer prices. This involves:

1. Calculating the projected principal payments for the underlying instrument.
2. Using those payments to derive a series of matched maturity funding rates.
3. Calculating the overall base transfer price by weighting each of the derived funding rates by the principal payment amount and by the term of the payment.

This approach weighs the marginal cost of funds (funds transfer rate) in each time period by the size of the cash flow of that period (and by the time to recognize the length of time over which a transfer rate is applicable).

Specifying Adjustments

FTP Adjustments is an optional page that enables you to identify charges or credits that should be added to the base rate. For example, you may want to calculate funds transfer pricing charges or credits for geographic premiums, liquidity premiums, embedded options, or incentive programs; or you may want to add to a CD yield curve a premium for FDIC insurance. The adjustment rules are used to define either basis point or fixed amount adjustments for ledger accounts, positions or instrument balances; in practice, it is expected that these are used most often for instrument balances. By specifying different ledger event codes, the funds transfer pricing adjustment amounts can be stored in separate ledger accounts than the base rate.

Your choices for adjustment calculation methods set up in the Adjustments page are:

- Basis point adjustment

  Calculates the funds transfer pricing adjustment by applying the rate specified to the instrument or account balance. Adjustment amount is calculated as: basis points/10,000 * balance * number of days in period/number of days in year.

- Fixed amount

  Generates a fixed amount charge or credit.

- Commitment period rate lock

  This option is available for instruments only. It can be used for instruments with a rate lock option for a specific commitment period−that is, the customer has been given a commitment for a loan at the lowest posted rate during the commitment period. For example, on mortgage loans, the customer may

be given an agreement on the commitment date that the rate on the loan is to be set when the loan is drawn or advanced (the start date of the loan) based on the lowest posted rate during the commitment period. If selected, the commitment period rate lock option calculates an funds transfer pricing adjustment that is to be used to transfer the risk of rising interest rates during the commitment period from the business unit to the treasury unit. The spread between the minimum posted rate available during the commitment period and the actual posted rate is applied as an funds transfer pricing adjustment. The historical posted rates are stored in the FI_IDX_RATE_F00 table. For example, a loan commitment might be made on January 1, 2000. If the actual start date of the loan turns out to be June 15, 2000, and the rate lock period is not filled in, then the rate lock adjustment is based on the lowest posted rate between January 1 and June 15, 2000. If, however, the rate lock period is set to 90 days, then the rate lock adjustment is based on the lowest posted rate between March 15 and June 15, 2000.

- Derived from yield curve

  This enables you to perform an adjustment based on a defined term and cost of funds curve. This is often desirable for generating term-based adjustments such as liquidity. Or you may want to pass through to your internal customers or analytical processes an explicit adjustment rate charge, rather than a single rate built from a composite curve comprising all aspects of the funds transfer pricing charge. By decomposing the rate into more granular components, you can encourage appropriate decision-making behavior.

- Lookup table adjustment

  This is an alternative that allows you to load base rate adjustments into an FTP Base Rate Adjustment lookup table. A single adjustment rule linked to this table can then be established to replace thousands of rules. The adjustment values can be in dollars or basis points.

Renewed or Extended Instruments

The Renewals/Extensions page of the Transfer Pricing Rules component is used to set up the funds transfer pricing rule for an instrument that is renewed or extended. For these instruments, the FTP Rate application engine calculates a new rate using a blend of the old funds transfer pricing rate and the current interest rates charged for these types of products.

For a renewed or extended instrument, the funds transfer pricing rate can be calculated by blending the new rate with the prior funds transfer pricing rate. A renewed or extended instrument is identified by on of the following transaction codes; 020, 025, 030, 040, and 050 on the FI_ITRNHST_R00 table. Two fields are provided on the instrument records to form the links between the multiple instrument records that can be involved for renewable types of products. On the FI_INSTR_F00 record itself, a field is available called FI_PREV_INSTR_ID that identifies the previous instrument ID for a renewed or extended contract.

In the case of a renewal or extension, the extract-transform-load process creates new instrument, balance, and status records that contain the information for the renewed instrument. When the new instrument is created, the FI_PREV_INSTR_ID field may be populated with the old instrument ID and may update the FI_NXT_INSTR_ID field on the old instrument's FI_ISTATUS_R00 record to point to the new instrument ID. The FI_NXT_INSTR_ID field is optional and is provided so that reports and queries can be performed to track the new instrument from the old instrument ID. The FI_PREV_INSTR_ID can also be used to track the old instrument from the new instrument ID. The blended rate adjustment is as follows:

Funds transfer pricing blended rate adjustment = ((NEW funds transfer pricing base rate − REMAINING TERM funds transfer pricing base rate) * (previous remaining term) * (previous remaining balance)) / (current remaining term * current balance).

The FTP Rate process determines the renewal rate lock period as follows:

1. It calculates the earliest possible renewal rate period date, that is, the date that is *n* days prior to the start date on the new instrument record, where*n* = number of days specified by theRate Lock Period field.

2. It sets the rate lock period to the period between the earliest renewal period date and the actual start date.

3. It finds the most recent range of dates for the minimum posted rate in effect during the rate lock period.

   The posted rates are the historical rates stored in the FI_IDX_RATE_F00 table according to the price index ID.

The FTP Rate process calculates the funds transfer pricing base rate for renewed or extended instruments using the minimum cost of funds rates in effect during the renewal rate lock period.

The FTP Rate process blends the current adjustment with the previous adjustment based on the following formula:

((previous adj.*(remaining term/remaining balance)) + (current adj.*(current term /current balance)) / (previous remaining term /previous remaining balance) + (current term /current balance)

A new funds transfer pricing rate is calculated for renewed or extended instruments, which are the same as new instruments. The FTP Rate process automatically scans the FI_ITRNHST_R00 table looking for funds transfer pricing reset events with the transaction codes of 020, 025, 030, 040, and 050 and resets the funds transfer pricing base and adjustment rates for all those instruments.

Setting Up Funds Transfer Pricing Rules

This section discusses how to:

- Define the funds transfer pricing rules.
- Define the base rate.
- Define adjustments.
- Set up renewals or extensions.

Pages Used to Set Up the Funds Transfer Pricing Rules

Page Name	*Definition Name*	*Navigation*	*Usage*
FTP Rule	FTP_RULE_DEFN	Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, FTP Rule	Create and maintain the business rules that define how the funds transfer rate calculates PF ledger account balances, position balances, and instrument balances.
Base Rate	FTP_RULE_BSEQ	Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, Base Rate	Specify the base rate for the funds transfer pricing rule.
Adjustments	FTP_RULE_ASEQ	Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, Adjustments	Specify optional adjustments to the base rate underlying the funds transfer pricing rule.
Renewals/Extensions	FTP_RULE_DEFN2	Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, Renewals/Extensions	Set up the funds transfer pricing rule for an instrument that is renewed or extended.
Transfer Pricing Rules - Notes	FTP_DESCRLONG	Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, Notes	Enter notes to record any information regarding the funds transfer pricing rule.

FTP Rule Page

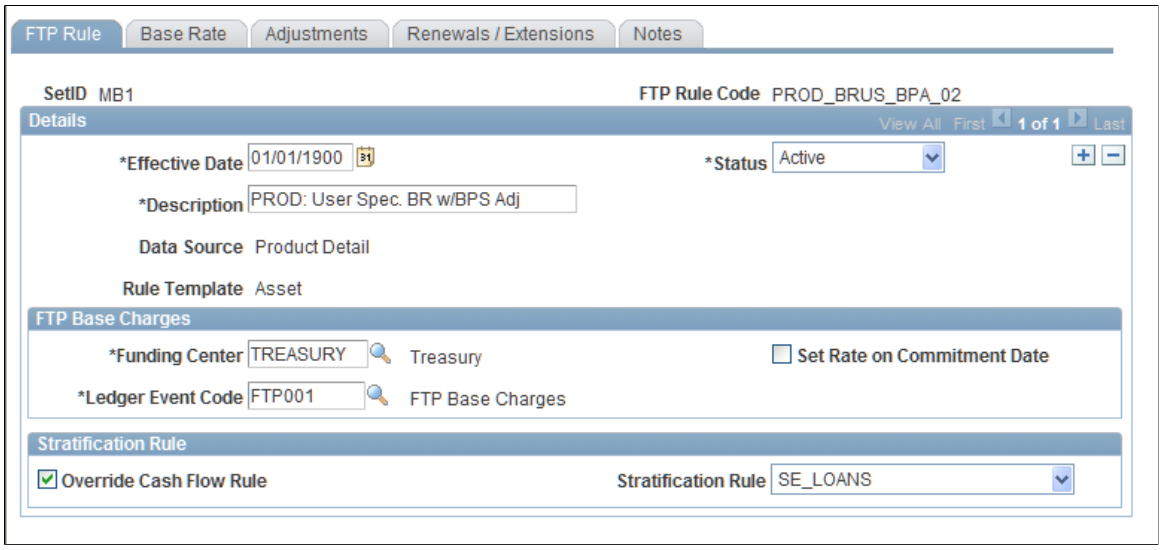
Use the FTP Rule page (FTP_RULE_DEFN) to create and maintain the business rules that define how the funds transfer rate calculates PF ledger account balances, position balances, and instrument balances.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, FTP Rule

Image: FTP Rule page

This example illustrates the fields and controls on the FTP Rule page. You can find definitions for the fields and controls later on this page.



Use this page to set up general information about the transfer pricing rule, including the funding center and ledger event code.

If your data source is *Product Detail,* determine whether you want to select theSet Rate on Commitment Date option. Then, specify any stratification rules. SelectOverride Cash Flow Rule to override the cash flow rule and select the particular rule in theStratification Rule field.

Base Rate Page

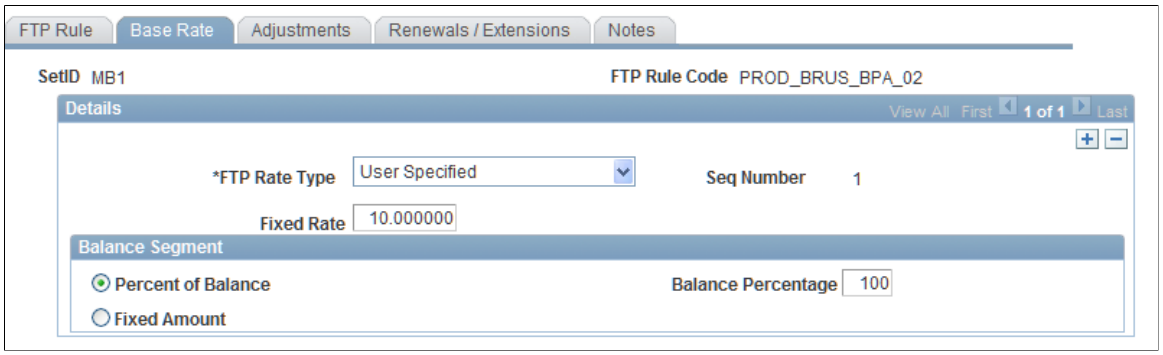
Use the Base Rate page (FTP_RULE_BSEQ) to specify the base rate for the funds transfer pricing rule.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, Base Rate

Image: Base Rate page

This example illustrates the fields and controls on the Base Rate page. You can find definitions for the fields and controls later on this page.



Specify a funds transfer pricing rate type to determine how PeopleSoft Funds Transfer Pricing derives the rate. Your choices are:

- *Derived from Yield Curve* (floating rate).

  Specify the currency cost of funds ID and the margin by which to adjust the interest rate derived from the yield curve in basis points. Then enter the maturity.

- *User Specified* (fixed rate).

  For this option, enter the funds transfer pricing rate in the Fixed Rate field.

Specify the tenor algorithms for this rate in the Term Calc Code(term calculation code) field by selecting from the available options.

Specify whether this funds transfer pricing rate applies to all or a portion of the balance. Select either Percent of Balance and enter the balance percentage, or selectFixed Amount and enter the balance amount. If you are segmenting balances for this funds transfer pricing rule, then insert as many rows as necessary, ensuring that the segments that you specify account for 100% of the balance. Otherwise, the system returns an error message.

Adjustments Page

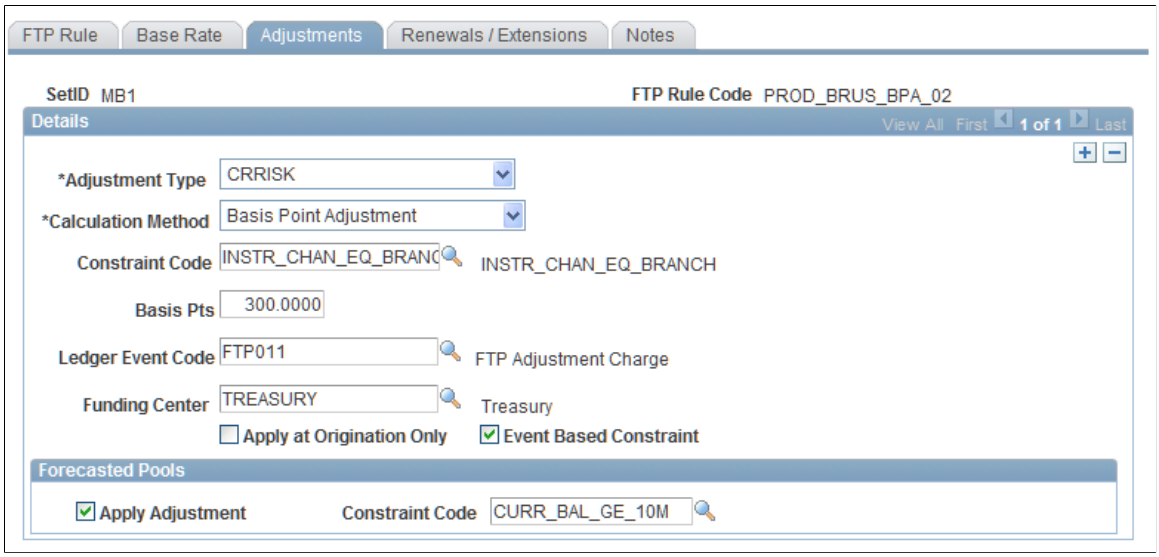
Use the Adjustments page (FTP_RULE_ASEQ) to specify optional adjustments to the base rate underlying the funds transfer pricing rule.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, Adjustments

Image: Adjustments page

This example illustrates the fields and controls on the Adjustments page. You can find definitions for the fields and controls later on this page.



Enter an adjustment type, calculation method, and constraint code. Different fields display, depending upon your prior selections:

Event Based Constraint Select to evaluate the constraint during each processing period. The adjustment is applied only if the constraint is satisfied. If you do not select this option, then the constraint is only evaluated when the FTP Rate process calculates funds transfer pricing adjustments for each instrument.

Rate Lock Period If left blank, the minimum posted rate during the entire commitment period is used to calculate the adjustment. If you enter number of days in this field, then the rate lock period is limited to the number of days prior to the start date.

Basis Pts When specifying a basis point adjustment, the rate is entered as an annual percentage; the FTP engine then prorates it for each reporting period.

However, if you select the Apply at Origination Only check box, the rate is entered as a one-time adjustment and applied in the origination reporting period.

Amount Enter the adjustment as a base currency amount.

Ledger Event Code Appears by default from the Rule Templates page, or you may select from a dropdown list. The ledger event codes (previously defined in the warehouse) determine in which PF ledger account the funds transfer pricing adjustment is to be booked.

Funding Center	Defaults from the Rule Templates page, or you may select from a dropdown list. Specifies the department that is to receive the offsetting account entry for the funds transfer pricing adjustment.
COF ID	(Cost of Funds ID). Select if you are selecting a calculation method of *Derived from Yield Curve.*
Maturity andUOM	Specify the maturity and units of measure by entering the number of *days,months,* or*years.* This applies for the calculation method*Derived from Yield Curve.*
YC Date	Enter the yield curve date.
Negate Rate	If this option is checked, the rate returned from the cost of funds curve will have its sign reversed (multiplied by –1). This can be useful when building spread-based adjustments.

For forecasted pools, indicate whether you want to Apply Adjustment and specify theConstraint Code to which the adjustment applies.

Renewals/Extensions Page

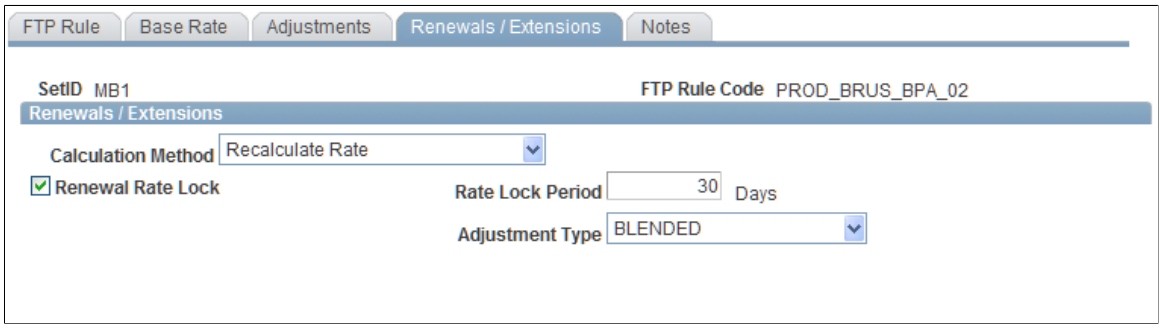
Use the Renewals/Extensions page (FTP_RULE_DEFN2) to set up the funds transfer pricing rule for an instrument that is renewed or extended.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, Transfer Pricing Rules, Renewals/ Extensions

Image: Renewals/Extensions page

This example illustrates the fields and controls on the Renewals/Extensions page. You can find definitions for the fields and controls later on this page.



Calculation Method	Select a calculation method. Values are *Maintain Spread* or*Recalculate Rate.*
Renewal Rate Lock	Select to use Renewal Rate Lock.
Rate Lock Period	Enter the Rate Lock Period.

Blended Rate Adjustment Select to use Blended Rate Adjustment.

This is an option to blend new FTP rates with previous FTP rates for renewals and extensions.

Adjustment Type Select an Adjustment Typecode.

Setting Up Break Funding Rules

This section provides an overview of break funding and explains how to establish break funding rules.

Pages Used to Set Up Break Funding Rules

Page Name	*Definition Name*	*Navigation*	*Usage*
Break Funding	FTP_BFND_RULE	Financial Services Industries, Funds Transfer Pricing Rules, Funds Transfer Pricing Rules, Break Funding Rules, Break Funding	Enter break funding charges for an instrument.
Break Funding - Notes	FTP_BFND_NOTES	Financial Services Industries, Funds Transfer Pricing Rules, Funds Transfer Pricing Rules, Break Funding Rules, Notes	Enter notes about the break fund rule.

Understanding Break Funding

Break funding charges are typically assessed for loans that are paid off before maturity and represent the cost of having to reinvest the funds at a lower return. The assumption is that the institution is raising term funds to match the term of the loan. Break fund charges are usually assessed on large loans, and their calculations are specific to the underlying instrument.

You can calculate break fund charges not only on payoffs, but on a cancelled drawdown as well. You can choose to accrue break fund charges over the remaining term of the instrument, or you can assess a onetime charge.

Break funding can be calculated:

- As a fixed amount.
- As a percentage or rate of the payoff or cancelled drawdown amount.
- By calculating the economic loss to the funding center, resulting from reinvestment of the funds under adverse interest rate conditions.

Treatment of Payoffs and Draw-Downs

The Instrument Transaction History table (FI_ITRNHST_R00) can be used to record payoffs received or the cancelled drawdown on financial assets that can trigger break funding events. These payoff events are used solely by PeopleSoft Funds Transfer Pricing for identifying and calculating break funding charges.

For instruments with a break funding rule, PeopleSoft Funds Transfer Pricing scans the Instrument Transaction History table (FI_ITRNHST_R00) for any payoff or cancelled drawdown event that occurred during the processing period. PeopleSoft Funds Transfer Pricing then calculates a break funding charge by using the amount of the payoff or cancelled drawdown as a starting balance, and projecting cash flows that would have resulted had the payoff not occurred, or had the drawdown occurred as originally planned.

The FTP_BFND process scans the FI_ITRNHST_R00 table for payoffs (on assets) or a cancelled drawdown event that has occurred during the processing period. When a break funding event has occurred, the program uses the break funding rule (that was assigned in the FTP Rate process) to calculate the appropriate charge.

Break funding events are stored in the FI_ITRNHST_R00 table that is populated as part of the migration process. Payoff events are identified with a transaction code of 090, while cancelled drawdowns have a transaction code of 080.

When an instrument is recalibrated.

A new funds transfer pricing rate is calculated for recalibrated instruments similar to new instrument calibration. The Break Fund Calculations (FTP_BFND) process automatically scans the FI_ITRNHST_R00 table looking for funds transfer pricing reset events with the transaction codes of 095 and resets the funds transfer pricing base and adjustment rates for all those instruments

The transaction codes listed above are as follows:

- *020*: Renegotiation w/Blend & Extend
- *025*: Renegotiation W/O Blend & Ext
- *030*: Fixed Rate Renewal
- *040*: Fixed Rate Add Loan
- *050*: Fixed Rate Blend & Extend

FTP recalibration is a process where you assign current markets rates to additional funding for acquisition or surplus funding for redeployment as a result of changed product balance behavior forecast and blend with previously locked-in funding cost based on a previous forecast to produce a recalibrated FTP rate. This rate reflects the funding cost locked-in according to the current balance behavior forecast for the synthetic instrument it is assigned to and replaces the previously assigned FTP rate to calculate actual and forecasted interested expenses for that synthetic instrument.

Reforecasting of FTP rates can occur multiple times during the life of a synthetic instrument. Lines of Business (LOBs) product management and account management requires reevaluation of initial assumptions and a reforecast of the future balance behavior of existing accounts. As a result, the FTP rate is recalibrated so that the balance deviations from the previously forecasted balance behavior are funded at current market rates and the newly projected balances are used as a comparison point for future breakage calculations. When reforecast occurs, the new FTP rate and projected balances need to be available to determine breakage events for the following accounting periods. If at least one reforecast happens, the breakage charges/credits due to reforecast are calculated as an FTP recalibration breakage or as a onetime Net Present Value (NPV) charge/credit. These two methods are mutually exclusive. If FTP recalibration breakage is chosen to be posted, then the recalibrated FTP rate is applied to actual balances to calculate total interest expenses for the accounting period. The FTP recalibration breakage is posted as the difference between the total interest expense amount using the recalibrated FTP rate and the base interest expenses using a base line FTP rate. The base line FTP rate can be the original proforma pricing

FTP rate for this synthetic instrument, the FTP rate from a budget, or some other user defined rate. If the one time NPV breakage is selected, then the calculated amount is posted to the current account period only. The breakage due to reforecast, whether it is the FTP recalibration breakage, or the one time NPV, is combined with the monthly one-off breakage and each total amount is posted separately to the "Breakage" line under "Total Interest Expenses" in the P&L.

Break Funding Page

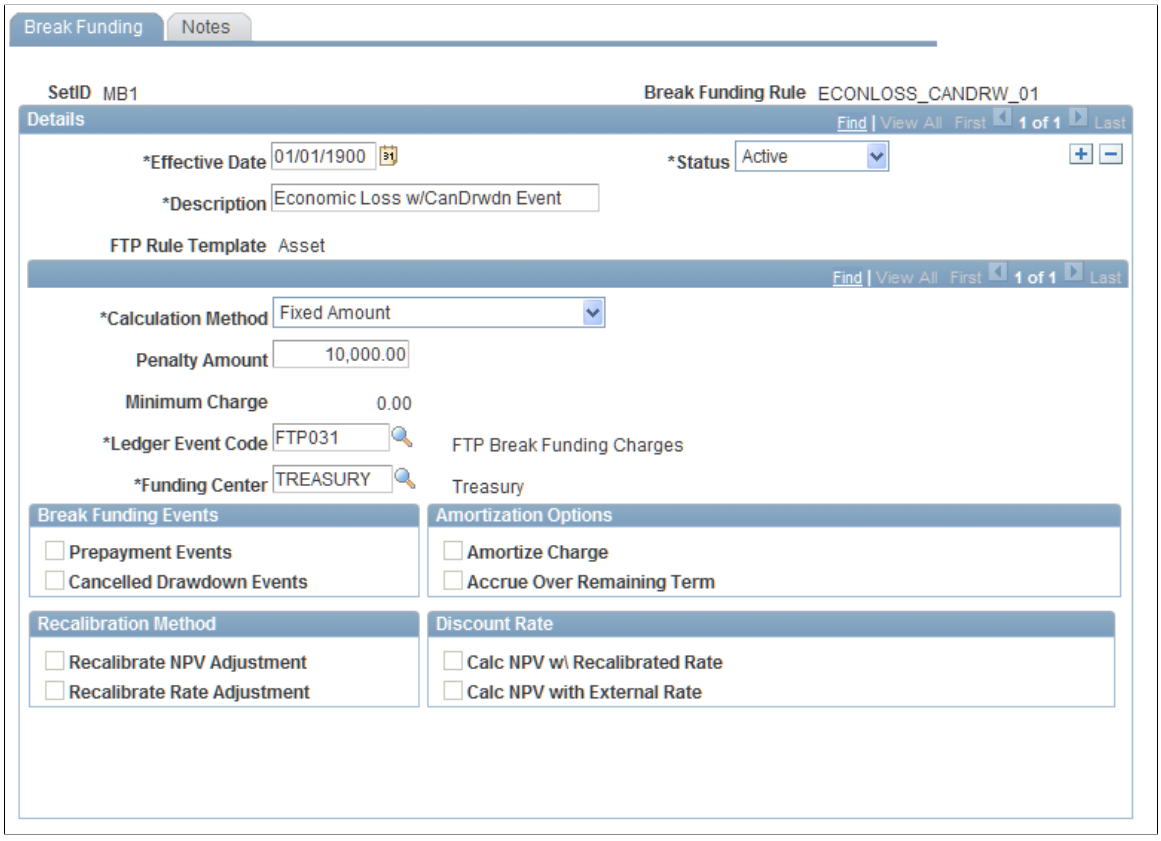
Use the Break Funding page (FTP_BFND_RULE) to enter break funding charges for an instrument.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, Funds Transfer Pricing Rules, Break Funding Rules, Break Funding

Image: Break Funding page

This example illustrates the fields and controls on the Break Funding page. You can find definitions for the fields and controls later on this page.



The fields in the page vary according to the selected option.

Set up general rule information, and then specify a calculation method.

Calculation Method Values are:

Economic Loss: Calculate the economic loss to the funding center, resulting from reinvestment of the funds under adverse interest rate conditions.

Fixed Amount: Specify the penalty amount.

Fixed Rate: Specify the break funding rate.

*Recalibrate FTP Rate:*Specify the recalibration rate.

The following fields will vary according to the option that you selected for the calculation method:

Penalty Amount Enter an amount in base currency units to be applied to the amount of the payoff or cancelled drawdown.

Break Fund Rate Enter a rate in basis points to be applied to the amount of the payoff or cancelled drawdown.

Minimum Charge Enter the minimum penalty amount. The actual break funding charge is the maximum of the amount calculated using a fixed rate or economic loss, as well as the minimum charge.

Ledger Event Code The ledger event code determines to which PF ledger account the break funding credit or charge is applied.

Funding Center Select the department that is to receive the offsetting account entry for the break funding credit or charge.

Break Funding Events

The events for which break funding occurs are set by default for prepayments and cancelled draw-downs. Deselect these fields if you do not want break funding to occur for these events.

Amortization Options

Set up your amortization options. Specify whether you want to amortize the break fund charges, and if so, over what period of time to amortize them.

Accrue Over Remaining Term Accrue the break fund charge over the remaining term of the loan. With this option the remaining term for the instrument is calculated at the time the break fund event occurs, and that term is used to amortize the break fund charge.

Accrual Term With this option the entire break fund charge is assessed during the fiscal year and accounting period during which it occurs.

Recalibration Method

Recalibrate NPV Adjustment Select this option to recalibrate the recalculated net present value (NPV) adjustment

Recalibrate Rate Adjustment Select this option to recalibrate the recalculated rate adjustment

Discount Rate

Calc NPV w\ Recalibrated Rate	Select this option to calculate the recalculated net present value (NPV) adjustment using the recalculated strip funding rate.
Calc NPV with External Rate	Select this option to calculate the recalculated net present value (NPV) adjustment using an external discount rate.
Discount Rate	Enter the rate used to discount cash flows deriving the net present value (NPV) of the recalculated FTP rate.

Calculating Break Fund Economic Loss

When calculating the economic loss to the funding center due to a payoff or a cancelled drawdown, funds transfer pricing applies the theoretical value of the interest rate differential (IRD) against the projected cash flow stream, based on the amount of the payoff or cancelled drawdown. For the remainder of this section, we will refer to both payoff and cancelled drawdown as payoff events.

To calculate the break funding economic loss:

Step 1

Calculate the funds transfer pricing rate for the original instrument.

Create a new synthetic instrument based on all the payment characteristics of the original instrument but with the following fields set to values based on the payoff event:

- Commitment date and start date are set to the transaction date of the payoff event.
- The amortization term to maturity is calculated as the number of days between the amortization end date of the instrument and the payoff transaction date. The current and initial balance amounts are set equal to the amount of the payoff or cancelled drawdown.

The following formula is used to calculate the funds transfer pricing rate for the original instrument:

```
((CASHFLOW*ACCRUAL) / (TOTAL(CASHFLOW*ACCRUAL)))*RATE
```

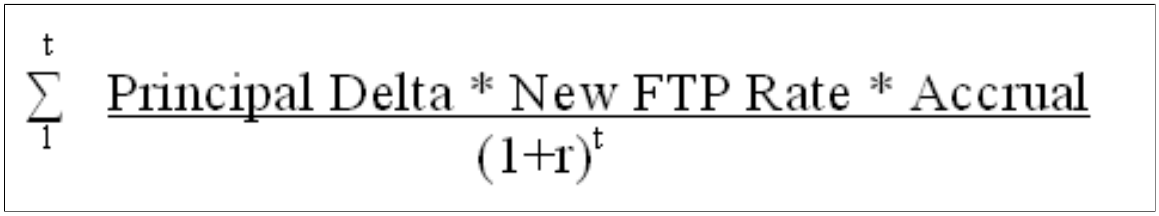
Step 2

Calculate a new funds transfer pricing rate for the synthetic instrument based on the same funds transfer pricing rule used for the original instrument.

The following formula is used to recalculate the funds transfer pricing rate from the payoff event:

Image: Formula to recalculate the funds transfer pricing rate

This example illustrates the fields and controls on the Formula to recalculate the funds transfer pricing rate. You can find definitions for the fields and controls later on this page.



Step 3

Calculate the IRD as the delta rate between the newly calculated funds transfer pricing rate for the payoff event and the funds transfer pricing rate used for the original instrument (subtract the new FTP rate from the original FTP rate to calculate the IRD).

The following formula is used to calculate the IRD:

```
Accrual * Change in Principal - (New FTP Rate/100)*Accrual*Change in Principal
```

Step 4

Determine whether the calculated IRD results in an economic loss to the funding center (calculate the amount of interest lost using the IRD as the interest rate).

For assets, if the IRD is positive, that is the underlying interest rates have gone up, then in theory the funding center can reinvest those funds at a higher rate, so no economic loss amount is calculated. For liabilities, if the IRD is negative, that is the underlying interest rates have gone down, then no economic gain amount is calculated. However, there is a minimum break funding charge value that can be set on the break funding rule, and if it is set, then a break funding charge is always assessed, regardless of the IRD.

The following formula is used to calculate the amount of interest lost:

```
Prin Delta * IRD/100 * Accrual
```

Step 5

Generate stream of projected cash flows for the synthetic instrument created based on the payoff event.

The following formula is used to calculate the NPV of the lost interest:

```
Interest Lost / (1+Discount Rate)^Accrual
```

Step 6

Calculate the lost or additional income stream to the funding center based on the projected cash flows and use the IRD as the interest rate used to calculate the projected interest payments.

Step 7

Calculate the value of the IRD income stream by calculating the NPV of the income stream using the discount factor based on the yield curve.

The yield curve is based on the Discount Factor table ID, defined on the financial calculation rules.

Setting Up Match Funding

This section discusses how to:

- Set up match funding rates.
- Set up break funding rules.

Pages Used to Set Up Match Funding

Page Name	*Definition Name*	*Navigation*	*Usage*
Match Funding Rates	FI_IMFUND_TBL	Financial Services Industries, Funds Transfer Pricing Rules, Funds Transfer Pricing Rules, Match Funding Rules, Match Funding Rates	Defines funds transfer rate and rule for a match-funded instrument.
Break Funding Rule	FI_IMFUND_BFSEQ	Financial Services Industries, Funds Transfer Pricing Rules, Funds Transfer Pricing Rules, Match Funding Rules, Break Funding Rule	Defines a break funding rule for a match-funded instrument.

Match Funding Rates Page

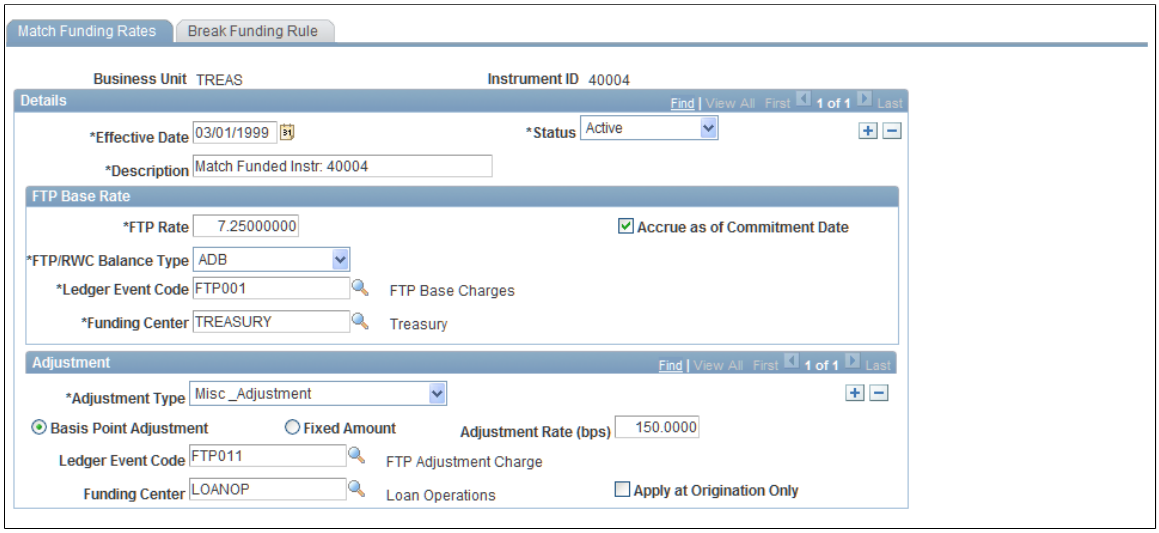
Use the Match Funding Rates page (FI_IMFUND_TBL) to defines funds transfer rate and rule for a match-funded instrument.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, Funds Transfer Pricing Rules, Match Funding Rules, Match Funding Rates

Image: Match Funding Rates page

This example illustrates the fields and controls on the Match Funding Rates page. You can find definitions for the fields and controls later on this page.



FTP Rate	Set up the base rate by entering an annual percentage rate.
Accrue as of Commitment Date	The funds transfer charges accrue as of the start date, if the commitment date is not selected.
FTP/RWC Balance Type	Select from the predefined values.
Ledger Event Code	Select the PF ledger (performance ledger) account to which the funding charge is to be posted.
Funding Center	Select the funding center that is to receive the offsetting funding charge for the instrument.
Adjustment Type	Select how you want the base funds transfer pricing rate to be adjusted.
Basis Point AdjustmentandFixed Amount	Select the appropriate radio button.
Adjustment Rate (bps)	For a basis point adjustment, enter a rate as an annual percentage in basis points.
Adjustment Amount	Enter the amount for a fixed amount adjustment.
Ledger Event Code	Select the PF ledger account to which the funding charge is to be posted.
Funding Center	Select the funding center that is to receive the offsetting funding charge for the instrument.

Apply at Origination Only Select to make a one-time adjustment at origination. If you select this check box, the entire adjustment is applied in the origination reporting period. If this check box is not selected, then the adjustment accrues across all reporting periods while the instrument or account is active.

Break Funding Rule Page

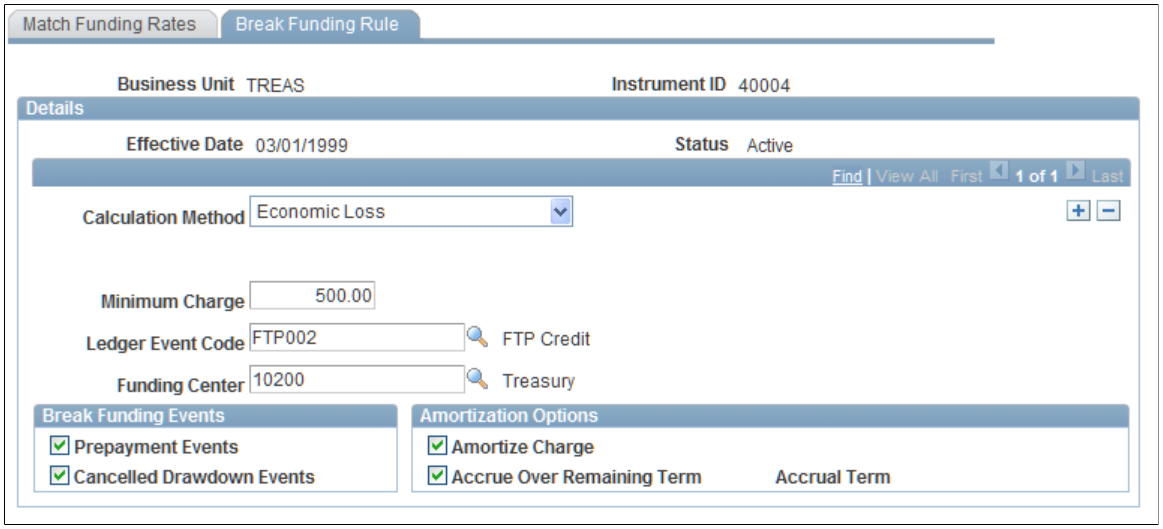
Use the Break Funding Rule page (FI_IMFUND_BFSEQ) to defines a break funding rule for a match-funded instrument.

Navigation

Financial Services Industries, Funds Transfer Pricing Rules, Funds Transfer Pricing Rules, Match Funding Rules, Break Funding Rule

Image: Break Funding Rule page

This example illustrates the fields and controls on the Break Funding Rule page. You can find definitions for the fields and controls later on this page.



Specify a calculation method. Your choices are *Amount,Economic Loss,Fixed Rate, Fixed Rate,*or*Recalibrate FTP Rate.* Depending upon your selection, the following fields appear:

Penalty Amount Enter an amount in base currency units.

Break Fund Rate Enter a rate in basis points to be applied to the amount of the payoff or cancelled drawdown.

Minimum Charge Enter the minimum penalty amount in base currency units.

Ledger Event Code Determines to which PF ledger account the funding charge is to post and is previously defined in the warehouse.

Funding Center Specifies the department that is to receive the offsetting funding charge for the instrument.

Next specify when you want to calculate a break fund charge. Your can choose between: payoff events or cancelled drawdown events.

Finally, specify whether you want to amortize the break fund charges, and if so, how to amortize them. Depending on your selection, the following fields appear:

Amortize Charge	Select to amortize the break fund charge, rather than apply a one-time charge.
Accrue Over Remaining Term	Select to accrue the break fund charge over the remaining term of the loan. If selected, then the remaining term for the instrument is calculated at the time the break fund event occurs, and that term is used to amortize the break fund charge.
Accrual Term	If you want to amortize the break fund charge but you did not select Accrue overRemaining Term, then you must specify the period over which to amortize the charge. A period can be specified in terms of*Days,Months,* or*Years.*