

PowerSeller® Risk Manager

Key Areas of Risk Management Policy to Address



- Defining the “At Risk” Position
- Designating Authorized Hedging Instruments
- Establishing Loan Production / Hedge Matching Policy
- Defining “At Risk” Viewpoints
- Defining Limits
- Modeling Policy
- Monitoring Policy
- Authorization and Documentation of Activities
- Factor Adjustment Policy

Overview

PowerSeller’s Risk Manager provides many features to support a Risk Management policy. The influence these features might have upon the policies you set will be described briefly as each of the Key Risk Management Policy Areas are reviewed.

Disclaimer

It should be noted that this document represents suggestions on items to include in your risk management policy and identifies some of the Risk Manager’s features that can be used in documenting and carrying out the policy. However, it is not meant to represent an exhaustive list of the items required to create a risk management policy document.

Defining the “At Risk” Position

The first step in building a risk policy is to define what we are trying to protect and what we are trying to achieve.

Document the risk(s) you are trying to protect (SFAS 138)

The “At Risk” position might be a sub-set of the mortgage pipeline position. Some loans may not be considered “At Risk” or considered outside the jurisdiction or scope of a specific risk manager or profit center. PowerSeller allows you to first divide the pipeline into business segments. A business segment is a logical collection of loans. A segment might be all jumbo loans, all conforming loans, loans coming from one or a collection of production sources.

You define the segments. The guiding principle is that a loan can only belong to one business segment being evaluated.

When running the Risk Analysis, you may select the business segments to evaluate.

Within a given business segment there still may be only a portion of loans that are considered “At Risk”. Their lock dates have expired, they have been sold “Best Efforts”, they are pre-committed portfolio loans, etc. Loan inclusion criteria can be further defined at the Risk Profile level. Or if those loans belong to an unshipped pool, the pool itself can be checked/indicated as one to exclude.

Determine whether you will allow your policy to consider the risk arising from “Overnight Rate Lock Risk”. Overnight Rate Lock risk represents a timing difference between when a loan is locked and when the hedger is made aware of the locked condition. Exposure occurs when loan volume surges and the lock in rate is lower than the current market rate level.

The approved discretion to model in such risk may prove to be beneficial.

Designating Authorized Hedging Instruments

Define the Instruments that can be used to hedge the loan pipeline.

Establishing Loan Production / Hedge Matching Policy

Hedge targeting and delivery allocation are often two separate issues for the mortgage pipeline risk manager. In hedging, the risk manager is often trying to match appropriate and optimal value shift characteristics. While delivery allocation is focused more on getting the highest delivered value for loans “held for sale”.

Many accounting rules require identification of the asset being targeted by a placed hedge. This matching makes performance monitoring possible. PowerSeller allows you to identify the business segment, loan instrument, anticipated delivery window and mortgage note rate range hedged by a trade on the trade window. The open database structure of Risk Manager allows you to export result tables to spreadsheets or another database for comparative evaluations.

You may wish to identify the type of risk being hedged with a given class of hedge instrument (SFAS 138). You will also want to establish when you would be performing fair value hedging and when you would be performing cash flow hedging (SFAS 133). You will want to describe how you identify loan commitments and inventory as derivatives or as off-balance sheet commitments (SFAS 133).

Defining “At Risk” Viewpoints

An “At Risk” viewpoint is the backdrop against which exposure limits are framed. Let’s examine the statement, “Our hedged conforming mortgage position will not lose more than \$2,000,000 per \$400,000,000 of deliveries in any given delivery month should interest rates shift 0.500% higher or lower and with closing ratios ranging between 60% and 90% on locked applications received.” The viewpoint is defined as looking at specific mortgage group for a given delivery month over a rate shift range over a range of closing experience rates.

Risk Manager allows you to define “profiles”. A profile incorporates a set of modeling assumptions and a collection of loans (hedged items) and trades (hedge instruments). You may run several different profiles if you wish. In addition to the profile a closing ratio grid, market value data, market value adjustments and loan cost basis adjustments will be referenced.

Specifically, the profile can define base line interest rate fluctuation rates you wish to assign to different delivery windows (Rate Cone). You can then set the interest rate correlation fluctuation ratio (Beta) for each investment instrument to be considered. The beta factor allows a particular instrument to manifest rate changes that are more, less or equal to the rate cone fluctuation rate. Multiple business segments may be associated with a profile. Finally, loan and trade inclusion criteria may be added to further refine the focus of a risk viewpoint.

Your viewpoints will be used to provide a context or backdrop for your limit statements. You will likely wish to define an array of viewpoints.

A viewpoint example might be as specific as ... business segment = "Conforming Loans"/rate cone = 50 bp rate cylinder/all betas = 1.000 / closing ratios range between 60% and 90% / use standard market value set – excluding mortgage servicing rights but adjusting for ltv/fico price adjustments / adjusting cost basis to factor in price subsidies granted on retail loan production.

Defining Limits

Risk Policy is often couched in terms of limiting exposure to a given risk. You should contemplate what the indirect impact the limits you place may have upon your business model. Example, setting a dollar value loss limit without any context to the production volume you are hedging could place some undue growth restrictions on your business model. Example, if you set a loss limit of \$100,000 per month that may be ideal for a \$20,000,000 warehouse. However, \$100,000 may be unduly restrictive or outright unrealistic for a \$200,000,000 pipeline. You may wish to use a combination of limits. The following are some valuation limits that the Risk Manager would allow you to monitor:

- Dollar Value Change Exposure
- Unit Value Change Exposure
- Absolute Dollar Value Loss
- Absolute Unit Value Loss
- Benchmark Weighted Dollar Volume Exposure (Fallout Adjusted or Not Adjusted)
- Dollar Volume Exposure (Fallout Adjusted or Not Adjusted)

There are other risks that you may wish to place limits upon.

- Credit Risk – You may wish to limit the amount of trades open with a specific counterparty.
- Credit Risk – You may wish to limit the amount of mark to market gains you have open with a specific trade counterparty.
- Liquidity Risk – You may wish to limit the amount of option premium paid you have outstanding.
- Rate Lock Risk – You may wish to limit the amount of unhedged floating rate lock commitments outstanding.
- Instrument Risk – You may wish to limit the maximum proportion of mandatory vs. non-mandatory hedges in place, or limit the proportion of futures contracts or short option positions vs. the outstanding pipeline or total open trade position.

You may wish to have these limits float up or down depending upon the current inter-market correlation (or fit) of one instrument vs. another instrument.

The Benchmark indicated here may be different than the "Benchmark" referred to in SFAS 138. Risk Manager allows you to identify an investor instrument and pass-through rate that might be the typical hedge used. The user may change this benchmark at any time.

Modeling Policy

Identify the risk analysis models (reports) that will be used to evaluate exposure and support management actions. Identify the assumptions that will be incorporated into these models and the circumstances for changing these assumptions.

Monitoring Policy

A policy for monitoring the effectiveness of hedges should be written. In addition you may wish to include policies regarding the evaluation and monitoring of factors contributing to risk such as trade / counterparty financial statements, closing ratio experience vs. rate changes and/or by production source (for example), interest rate volatility trends, intermarket interest rate correlation and beta rates.

The Risk Manager provides services to assess closing ratio experiences, interest rate volatility and correlation; the open database allows you to export results tables for further analysis. The report-writing tool allows you to build other reports to augment your monitoring activities.

Regarding closing ratio experience, you will want to identify what items you consider represent partial fallout, which items you consider to be interest rate influenced fallout, how you wish to score loans re-entering the system. Also, a decision should be made as to how often you trap closing ratio experience and how often you would perform analysis.

You will want to establish a policy for how you will determine hedge effectiveness for different hedge instrument / hedged item combinations. Example, the way you evaluate the effectiveness of put option contracts vs. jumbo fixed term arm commitments may need to be different than forward sales of mortgage-backed securities against conforming fixed rate commitments. Also, you will want to indicate how often or with what frequency the effectiveness testing will be performed.

You might wish to use the inter-market correlation analysis to track the effectiveness or correlation between a SFAS 138 benchmark instrument and the hedged item.

Authorization and Documentation of Activities

You should identify who may authorize transactions and how you wish to document that transactions have been authorized. Risk Manager allows you to enter the traded by, entered by and confirmed by values for trades. Additional columns may be used if needed.

Factor Adjustment Policy

As mentioned earlier, you may wish to change the values of the assumptions you employ. The philosophy and maintenance procedures for these adjustments should be documented.

Among the factors, that if adjusted, could impact the perceptions of exposure and effectiveness are:

- DDE values used
- Price adjustments
- Cost basis adjustments
- Mortgage Servicing Rights Values
- Eligible Delivery Window Determination
- Rate Cone Values
- Rate Beta Values
- Value sensitivity rates
- The consistency between the market values you use to value the portfolio and the actual delivery values received
- Closing Ratio Values
- Delivery Window Hedged Designations
- Trade Transaction Costs or Slippage Included

A periodic review of these assumptions could be beneficial.