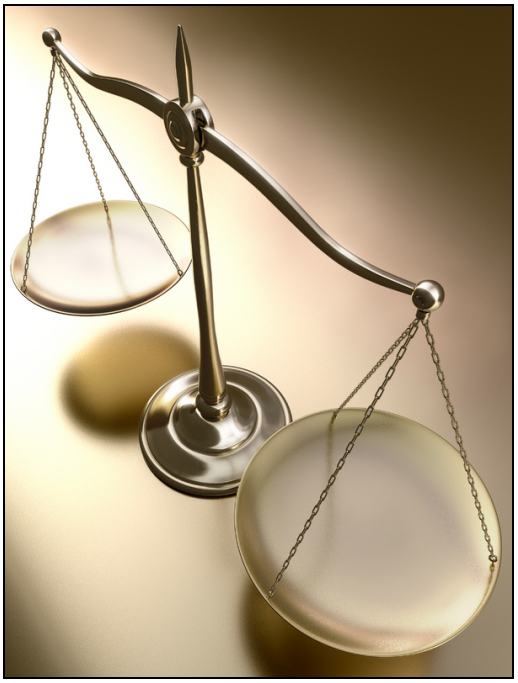
Funding Mix

A key component of successful bank management is the careful balance between asset growth and funding growth.



Your bank needs funding to fund loans that your bank issues, purchase new investment securities and/or repay debt previously borrowed.

Deposits are your bank's primary source of funding (as they are for most banks). Deposits are also the most attractive source of funding, because they are a relatively inexpensive and stable source of funding.

However, banks often require additional sources of funding beyond deposits. In the simulation, if you do not have enough deposits to fund your balance sheet, the simulation will automatically raise funding from additional sources, which can include:

- Securitizing loans
- Issuing commercial paper
- Borrowing from other banks through Fed Funds Purchased

You determine what percentage of additional funding will come from each of these sources (if needed).

While using these additional sources of funding ensures your bank's balance sheet will remain "in balance", these additional sources of funding do come at a cost (see below). As a result, you want to grow deposits enough to fund your asset growth year-over-year to minimize your need for these additional funding sources.

So, how do you ensure your bank's deposit and asset growth are in balance? The first step is to project your funding needs for the next year:

- Work with Retail Banking to identify the expected growth (or decline) in:
  - Credit card loans
  - Consumer loans
  - Mortgage loans (fixed-rate and variable)

- Work with Corporate Banking to identify the expected growth (or decline) in:
  - Lines of credit
  - Commercial real estate loans
- Identify the amount of new investment securities you plan to purchase in the coming year
- Identify the expected growth (or decline) of your existing Investment Portfolio (created by changes in the interest rate environment)
- Identify any Fed Funds Purchased and/or Commercial Paper to be repaid

With this information identified, evaluate your funding sources:

- Work with Retail Banking and Corporate Banking to identify the expected growth (or decline) in deposits
- Determine if there are any Fed Funds Sold to be repaid to you

See Sample Calculation ALM-2 for an example.

If you project a funding shortfall, you have four options:

- You can attempt to attract more deposits
- You can slow down asset growth by limiting growth in loans and/or new investment portfolio purchases
- You can sell existing securities in your investment portfolio
- You can raise additional funds by securitizing loans , issuing commercial paper and/or borrowing money from other banks through Fed Funds Purchased

The table below is designed to help you project your sources and uses of funds.

Uses of Funds	Year 0 Actual	Year 1 Estimate	Year 1 Actual	Year 2 Estimate	Year 2 Actual	Year 3 Estimate
Increase (decrease) in Net Loans	20,479.0					
Investment Portfolio purchases	8,515.0					
Increase (decrease) in market value of Investment Portfolio	(4,115.0)					
Fed Funds Purchased in previous year	55.0	1.036.1	1,036.1			
Commercial Paper issued in previous year	167.0	3,107.0	3,107.0			
Other uses of funds	342.0					
Total Uses of Funds	25,443.0					

Sources of Funds	Year 0 Actual	Year 1 Estimate	Year 1 Actual	Year 2 Estimate	Year 2 Actual	Year 3 Estimate
Net increase (decrease) in Deposits	19,722.3					
Fed Funds Sold in previous year	0.0	0.0	0.0			
Investment Portfolio sales	0.0					
Loans securitized	2,761.6					
New Commercial Paper issued	3,107.0					
Increase (decrease) in Equity	(1,184.0)					
Other sources of funds	0.0					
Total Sources of Funds	24,406.9					

Fed Funds Sold (Purchased) *Total Sources of Funds – Total Uses of Funds*	(1,036.1)					

Securitizing Loans

Securitization is the process of raising new funds by "bundling" existing assets and converting them into securities, and then selling these securities to investors.

In this simulation, you can securitize:

- Fixed-rate mortgage loans
- Variable-rate mortgage loans

If you choose to ***securitize mortgage loans***, these assets are sold to a third party (e.g., Fannie Mae, Freddie Mac). The mortgage loans are removed from your bank's Balance Sheet, and the funds become available to your institution. You will no longer process the mortgage loans, and any payments sent by the borrower will be sent to a third party processor who will then forward the payments to the mortgage holder.

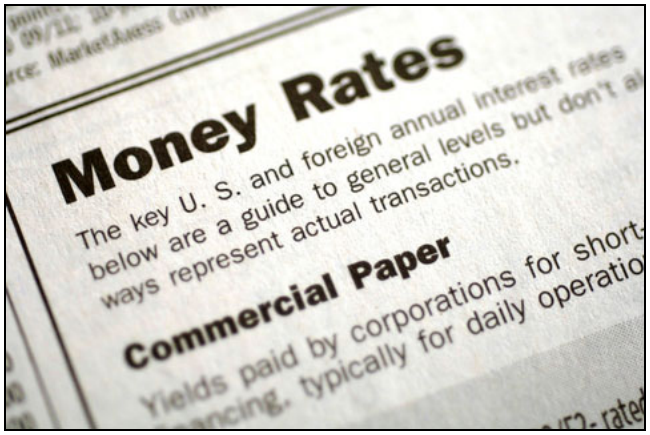
Securitizing mortgage loans allows you to turn illiquid assets into cash, reducing your need for funding. However, securitizing mortgage loans also means your bank no longer receives revenue from these interest-earning assets.

You may also experience a gain or loss on the sale of your fixed-rate mortgage loans. If the average yield on your fixed-rate mortgage portfolio is *above* market rates on current fixed-rate mortgages, you will realize a capital gain. If the average yield on your fixed-rate mortgage portfolio is *below* market rates on current fixed-rate mortgages, you will realize a capital loss.

See Sample Calculation ALM-3 for an example.

Variable-rate mortgage loans do not generate a gain or loss, because the simulation assumes they are priced at the current market rate.

Issuing Commercial Paper



In the simulation, you can issue new debt in the form of commercial paper if you need additional funding. Commercial paper is unsecured, short-term debt. Commercial paper is typically issued by banks, finance companies and other corporations with maturities of 30-60 days.

In the simulation, assume commercial paper has a maturity of less than 12 months. ***In other words, any commercial paper you issue in the current year will mature in the next year***. So, if you have $3 billion in commercial paper currently outstanding at the end of the previous year, you will need to repay this debt in the current year.

In this simulation, the funding costs associated with commercial paper you issue is 20 basis points above the Fed Funds rate for that year.

Fed Funds Purchased

Fed Funds Purchased represents short-term funding from other banks. Fed Funds Purchased are shown as a liability on your balance sheet.

These loans from other banks are made at the Fed Funds interest rate determined by the Simulation Administrator before the simulation begins.

Fed Funds Purchased are usually a more expensive source of funding than deposits. For example, at SimStart your bank is paying an interest rate of 1.00% - 1.95% on retail and commercial deposits. However, the Fed Funds Rate at SimStart is 2.50%.

Banking regulators and investors frown upon excessive Fed Funds Purchased. It represents a bank that is "out of balance". In other words, it represents a bank that is growing assets more quickly than deposits, forcing the bank to rely on more expensive, less stable sources of funding. As a result, if your Fed Funds Purchased are greater than 10% of your total assets, you will be penalized in that round with a 10% reduction in your stock price.

Fed Funds Sold

Your bank can also grow deposits too quickly. If your bank raises more deposits than needed to fund your loans and investments, the excess funds are lent out to other banks.

These short-term loans to other banks are referred to as Fed Funds Sold. Fed Funds Sold are shown as an asset on your balance sheet (like other loans).

These loans are made at the Fed Funds rate determined by the Simulation Administrator before the simulation begins.

While lending excess funds to other banks does generate some interest income for your bank, it does so at a relatively low interest rate. For example, at SimStart the Fed Funds Rate is 2.50%. However:

- Your bank is earning 4.00% - 9.49% on loans
- Yields on:
  - Treasuries are 3.06%
  - Mortgage-backed securities are 3.92%
  - Investment-grade debt are 4.62%

So, using deposits to lend money to other banks at a rate of 2.50% is the least profitable option available.

As with Fed Funds Purchased, banking regulators and investors do not like to see excessive Fed Funds Sold. It represents a bank that is "out of balance", because the bank is growing deposits more quickly

than it can put those deposits “to work” effectively. As a result, in the simulation, you are trying to limit your Fed Funds Sold to no more than 10% of your total assets. If they are greater than 10% of your total assets, you will be penalized in that round with a 10% reduction in your stock price.