



June 7 2016

## Weekly Post: Investment Strategies

Dear Clients-

Investment strategies are important to manage your risk and earnings because they can respond to continual changes in the market conditions and your balance sheet. However, there are many factors to consider when buying and selling securities. In addition to abiding by your investment policy, you must also seek the **optimal** investment strategy for managing interest rate, liquity and capital risk while maximizing earnings.

A trade is "good" only if the transaction is evaluated against other alternative investment strategies, selecting from many securities types. And a good trade should assist you in meeting your balance sheet goals and not be based only on the characteristics of the bonds you are buying and selling. This post describes how such a systematic approach can be used to formulate investment strategies for your ALCO meeting.

### **Challenges**

- Which bond sectors are "cheap" to buy using my cash?
- Can I use FHLB advances to buy bonds to enhance my earnings?
- Should I swap bonds into short term assets to increase the liquidity coverage ratio?

#### Solution

You should follow an investment process:

- Select a set of optimal strategies from a library of strategies based on your key performance measures.
- Adjust the proposed transactions with executable prices taking into consideration of realized gains or losses.
- View the impact of different trading scenarios and weigh the risk and return tradeoffs to select an optimal solution.

This process is illustrated below using a hypothetical bank.

## **Numerical Example**

You can use Risk Officer App *Investment Strategy* to search for the "best" strategies that meet your criteria. These criteria are:

#### Market Wisdom - Art Hilliard\*

Price Isn't Everything

Having the highest bid dosen't necessarily guanantee that you will win the bid (as I am painfully aware). Aside from price, sellers may pick the winning bid based on different criteria.

- A buyer may submit a bid for an entire pool of loans with an All or Nothing (AON) requirement meaning the seller must accept the entire bid and not just the highest prices on individual loans (Cherry Picking). The seller may pick a lower all-in bid in order to sell the entire pool.
- The buyer's partial bid (which could also be AON) may include loans that the seller needs to get rid of, so the seller takes the bid
- Bidder stipulations, which are conditions put on the bid, may cause the seller to take another bid to avoid problems in due diligence.
- A seller may give a premium to a bidder based on a long standing relationship

As can be seen in the attached pool, I had some prices in the high to mid 90s. A partial bid. However, the pool sold to multiple bidders at 88.75. Sellers typically do not share bid color past the all-in price, so bidders usually don't know how they stacked up against the others. That is why one must use their sharpest pencil on bids and not get greedy.

Pigs get fat hogs get slaughtered

Art Hilliard has been in the mortgage industry for 29 years. He has originated, managed secondary marketing, securitizations and settlements, provided mortgage financial advisory and performed multiple mortgage portfolio sales and acquisitions. He was past president of the Illinois Mortgage Bankers Association.

Pool details attached THC site Conf Room

# THC Financial Engineering



- ROE (earnings)
- Margin (earnings)
- EVE ratio (capital risk)
- Duration (interest rate risk)

You can dial and adjust the weights for each criteria and the Investment Strategy will rank over 60 strategies based on their scores. In this example, the THC Advisor Bank seeks to lower the EVE duration after recognizing that the bank has excess capital on its balance sheet. Lowering the duration may adversely affect the earnings, but leveraging up the balance sheet can mitigate such an adverse effect. By adjusting the weights on these criteria, the strategies are ranked by the score, as illustrated below. The result shows that multiple strategies can lower the duration. The strategy with the highest score can lower the duration from 1.39 to 0.23. The EVE ratio decreases from 20.23% to 18.39% and the ROE increases by 0.65%.

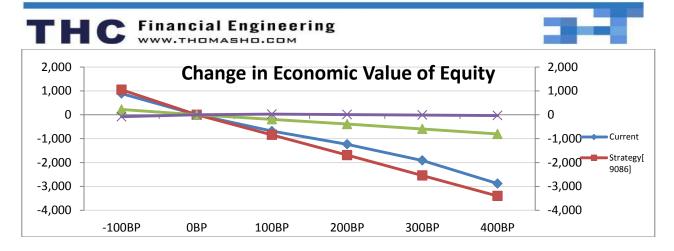
Bank Info							Dashboard Analytics			
ABANumber	Name						ROE(%)	Margin(%)	EVE Ratio(%)	Duration
999	9 THC Advisor						9.05	2.96	20.23	1.39
	Peer Group:103	3					3.52	2.97	12.97	2.71
							DOE(0/)	M. America (O/ )	EN (E. D. 11 - (0/)	D
Strategy ID	Buy	Dur	Funding	Dur		Score	ROE(%)	Margin(%) ⊦ - 0	EVE Ratio(%)	- C
	Buy MBS->5/1	Dur 2.4	Funding Dep->BrokerCD	Dur 4.7	10.00%	Score 0.08	9.70	- ( <b>)                                  </b>	+ - 0 +	- 0.23

Next, you can evaluate these candidates using our transactional analysis. Using the Asset Liability Management tool in the THC Transactional Network, you can generate the ALCO report comparing these strategies based on securities prices that are updated daily. Furthermore, you can adjust the prices and sizes based on your broker's suggestions, your analysis of the market conditions or using your brokers' quotes provided to Risk Officer.

The ALCO report summarizes the performance of the trade in multiple ways. The example in the table provides a side by side comparison of multiple strategies on the balance sheet.

Performance	Current	Strategy[9086]	Strategy[9085]	Strategy[9084]
EVE ratio(%)	14.74	8.64	12.63	14.04
Duration	5.81	11.91	7.18	5.43
% EVE Chg up 400	-20.98	-45.75	-26.85	-21.21
Short Term/Asset(%)	7.32	4.29	6.27	6.95
Margin(%)	2.71	3.42	2.75	2.59
NII(\$000)	2,633	5,539	3,092	2,638
Earning(\$000)	307	3,214	766	312
ROE(%)	2.23	23.39	5.58	2.27

The ALCO report also evaluates the efficacy of the strategies with respect to regulatory guidelines. In this case, the % change in EVE is illustrated below.



Other analysis of the investment process including using:

- The Bond Monitor which continually updates the security prices and the unrealized gain/loss of selected securities in your portfolio enabling you to monitor and optimize the reported taxable income.
- Trade simulations and bond swap report enable you to drill down further on the transactions, using similar but different securities.
- Investment analytics report and investment portfolio key rate duration reports give in depth analyses of value and risk of each security and the portfolio.

### **Conclusions**

You can use investment strategies to enhance earnings and manage your balance sheet risk. You need to follow an investment process to seek an optimal trade. The process should include:

- evaluating multiple strategies,
- ensuring the transaction takes into consideration current market conditions
- meeting your balance sheet goals.

This Post describes the use of our Strategy Analyzer to rank a list of strategies and then the ALCO report that takes market conditions into consideration.

If you have any questions on the THC Approach to an investment process, please do not hesitate to contact THC.

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