21 October 2013 | 9 pages

North America

If I Managed Insurance Money…

An "easy" way to boost return on capital

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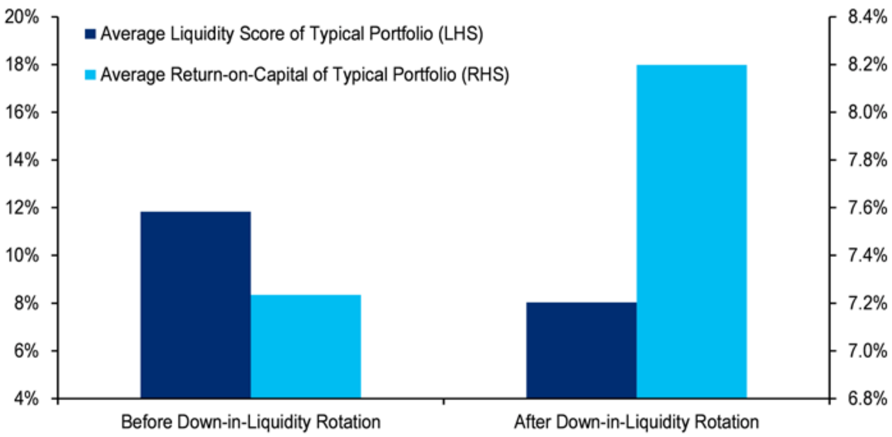
- **Overview:** Determining the optimal amount of liquidity to hold in a corporate portfolio is certainly no easy task, given that there are so many moving parts. That said, insurance portfolios usually have more latitude than others to move down in liquidity in order to boost yield. We examined fifteen insurance portfolios to gauge the extent to which this is occurring, and how much value can still be "unlocked" by going down the liquidity spectrum.

- ***Way* Down in Liquidity:** The liquidity profile of the average insurance portfolio (corporate only) is well below the market average. This is probably as it should be – return-on-capital is meaningfully higher than the overall market in part due to this positioning.

- **There is Room for "Improvement":** We test a simple rotation strategy; for every name that is already held in the typical insurance portfolio, we find another CUSIP of the same name and in the same maturity bucket but that is less liquid. Rotating from the more liquid one to the less liquid can boost ROC dramatically.

- **Recommendation:** We present a sample list of ADD and REDUCE CANDIDATES for the same name that will result in lower portfolio liquidity but sharply increase ROC. We also highlight a single-name / CLO rotation as well, based on the theory that less liquid bonds can be found in many places.

Figure 1. How much value can be unlocked by the typical insurance portfolio via moving down the liquidity spectrum? In theory, a lot!



Source: Citi Research, TRACE
Note: As of October 14, 2013; market value weighted; based on 2012YE portfolios

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Figure 2. NAIC capital requirement by category

S&P	Moody's	NAIC Category	NAIC Capital
AAA to A-	Aaa to A3	1	0.30%
BBB+ to BBB-	Baa1 to Baa3	2	0.96%
BB+ to BB-	Ba1 to Ba3	3	3.39%
B+ to B-	B1 to B3	4	7.38%
CCC+ to CCC-	Caa1 to Caa3	5	16.96%

Source: Citi Research, NAIC
Note: Only S&P and Moody's ratings are presented, but NAIC considers ratings from 7 agencies

Portfolio managers at the typical insurance company face a number of challenges, in large part because there are so many factors that limit their opportunity set (e.g., dollar prices, ratings, yield targets, etc.). But that said, there are a few advantages that these PMs have over others, one of the more important being relatively modest sensitivity to mark-to-market risk. MTM insensitivity means that insurance portfolios are well positioned to move down the liquidity spectrum to enhance yield.

To get a sense of how insurance company PMs are leveraging their ability to edge down in liquidity at this juncture we examined the *credit* portfolios of fifteen different insurers. The key findings of this study are:

- ***Way* down in liquidity:** We found that the average insurance portfolio holds far less liquid bonds than the market average; portfolio yield and return on capital benefit significantly as a result.

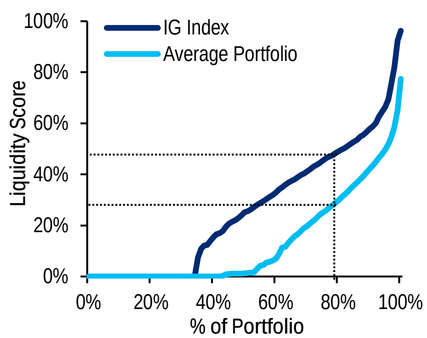
- **But many differences across portfolios:** The average portfolio masks the fact that there is a very wide range around the average. Some portfolios seem to hold bonds that are far too liquid and yield far too little.

- **Everyone has room for "improvement":** We also find that a very simple down-in-liquidity rotation can bolster ROC for every insurance company (in theory, anyway).

The essence of this article is to see how much value can be "unlocked" at this point by the typical insurance company via rotating into less liquid bonds. Before continuing, we want to acknowledge that we oversimplify in our study. Liquidity is very complicated – bid / ask spread, sourcing bonds, etc., are all factors that play a role in practice, but not in theory.

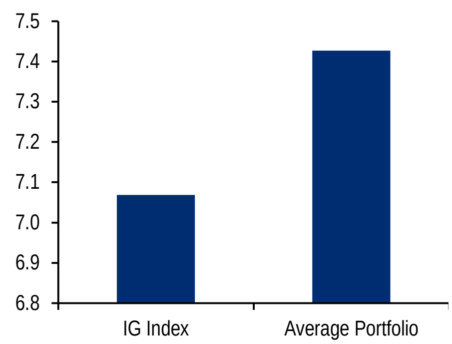
But that said, there may be value to be unlocked. In this study we define liquidity via our liquidity scoring model. It takes into account five factors, ranging from the clustering of trading activity to the propensity of client trading to be one-sided (all client buys or all client sells). We encourage readers to refer to *Liquidity Made Easy* dated July 18, 2013 for more detail.

Figure 3. Liquidity profile of the broad market and the typical insurance portfolio



Source: Citi Research, TRACE
Note: Liquidity score as of October 14, 2013; percent of portfolio based on market value as of October 11, 2013; based on 2012YE portfolios

Figure 4. Expected ROC for the broad market and the average insurance portfolio



Source: Citi Research, TRACE
Note: As of October 14, 2013; market value weighted; based on 2012YE portfolios

1. *Way* down in liquidity

In Figure 3 (previous page) we compare the liquidity profile of the average insurance portfolio with the overall market. Specifically we present the liquidity score on the Y-axis and the percent of each portfolio on the X-axis. Essentially this shows the maximum amount of liquidity for any given portion of the portfolio.

For example, we see that 80% of the overall market has a liquidity score of 49% or lower. But the number for the typical insurance portfolio is vastly different — 80% of the typical insurance portfolio has a maximum liquidity score of only 26%.

So far less liquid than the market, but the real question is how much this down-in-liquidity positioning is actually worth, specifically in return-on-capital terms. We find that it is worth quite a bit. If we calculate return-on-capital based on NAIC capital requirements (Figure 2, previous page) we find that the broad market generates a ROC of 7.07%, relative to 7.43% for the typical insurance portfolio (Figure 4, previous page).

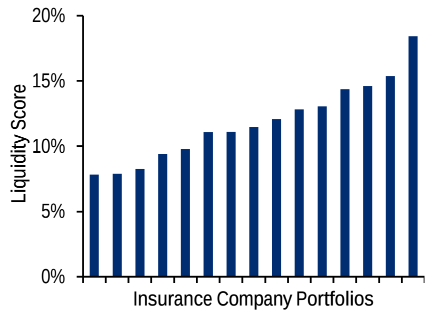
2. But many differences across portfolios

So the average portfolio is tilted towards less liquid bonds, but this masks the fact that there is an extremely large range around the average. Figure 5 presents the liquidity score for each portfolio in our sample set, and we can see that they range from 7.8% to 18.4%.

So we went through a very simple liquidity / ROC “optimization” exercise. We focused on the four most liquid portfolios and we calculated how much their ROC would increase if they brought their scores more in-line with their competitors (again, we acknowledge this is easy in practice, not the real world; Figure 6 and Figure 7). Specifically, within these four portfolios for each name that was *already held* (i.e., PM is comfortable with the credit risk), **we looked to see if there was another CUSIP in the same maturity bucket with a lower liquidity score. If so, and the ROC was higher, we shifted from one to the other.**

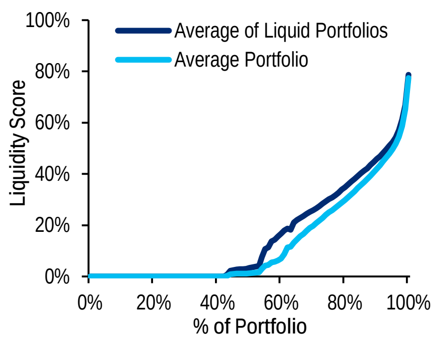
The results of this very simple approach were surprising. Figure 8 shows that on average liquidity went from 16% to 11%, but ROC increased from 7.3% to 8.2%. We clearly oversimplify, but still…

Figure 5. Liquidity scores for each insurance portfolio



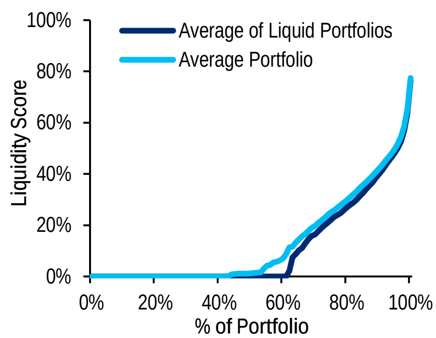
Source: Citi Research, TRACE
Note: Liquidity score as of October 14, 2013; MV weighted; based on 2012YE portfolios

Figure 6. Liquidity profile of most liquid and average portfolios BEFORE rotation



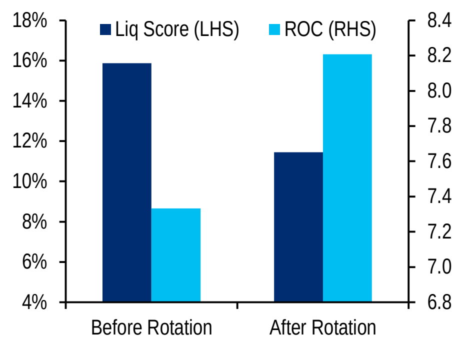
Source: Citi Research, TRACE
Note: Liquidity score as of October 14, 2013; percent of portfolio based on market value as of October 11, 2013; based on 2012YE portfolios

Figure 7. Liquidity profile of most liquid and average portfolios AFTER rotation



Source: Citi Research, TRACE
Note: Liquidity score as of October 14, 2013; percent of portfolio based on market value as of October 11, 2013; based on 2012YE portfolios

Figure 8. Liquidity / ROC profile of select insurance portfolios, before and after rotation



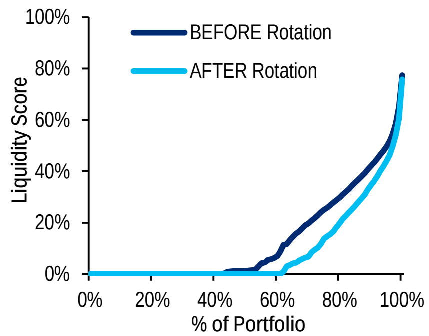
Source: Citi Research, TRACE
Note: As of October 14, 2013; market value weighted; based on 2012YE portfolios

3. Everyone has room to "improve"

As noted above, while the average insurance portfolio holds less liquid issues, there may be room for "improvement." We went through the same optimization exercise detailed above for the average portfolio rather than just the most liquid ones.

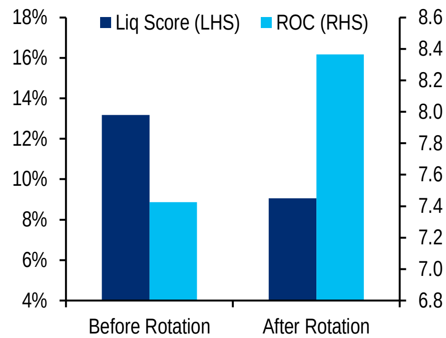
The results of this optimization for the average portfolio were similar to those for the most liquid ones — dramatic. Figure 10 shows that liquidity in the typical portfolio went from 13% to 9%, but ROC increased from 7.4% to 8.4%.

Figure 9. Liquidity profile of the average insurance portfolio and the "optimal" portfolio



Source: Citi Research, TRACE
Note: Liquidity score as of October 14, 2013; percent of portfolio based on market value as of October 11, 2013; based on 2012YE portfolios

Figure 10. ROC difference between "optimal" and average portfolio is 94 bp



Source: Citi Research, TRACE
Note: As of October 14, 2013; market value weighted; based on 2012YE portfolios

Recommendation

There may be ways, and fairly easy ways at that, for PMs to edge down in liquidity and significantly boost ROC. We highlight two approaches below.

Idea #1: Single name rotation

In Figure 11 (next page) we present long-tenor bonds in various sectors that are widely held in the portfolios we examined. On average, rotating from these more liquid issues into another bond of similar maturity and of same issuer can enable a yield pickup of 28 bp, a dollar takeout of $2, and an increase in ROC of 2.8%.

Figure 11. Examples of ways to give up liquidity, but takeout dollars, boost yield, and enhance ROC dramatically

		REDUCE CANDIDATES					→	ADD CANDIDATES				
Issuer	Sector	Issue	Price	YTW	ROC	Liq Score		Issue	Price	YTW	ROC	Liq Score
BAC	Financial	6.11s of '37	104.4	5.77	6.0	20%		6.75s of '28	113.5	5.40	18.0	0%
CAT	Industrial	5.2s of '41	106.2	4.79	16.0	44%		6.05s of '36	113.8	5.03	16.8	0%
CVS	Consumer Disc	6.25s of '27	119.7	4.32	4.5	31%		6.125s of '39	114.1	5.14	5.3	0%
GLW	Communications	4.75s of '42	97.7	4.90	16.3	22%		4.7s of '37	93.6	5.17	17.2	0%
NEE	Utilities	5.95s of '33	120.9	4.37	14.6	13%		5.65s of '37	112.3	4.77	15.9	0%
UNH	Consumer Staples	6.875s of '38	129.7	4.80	16.0	17%		6.5s of '37	119.1	5.10	17.0	0%
		Average	113.1	4.82	12.2	25%		Average	111.1	5.10	15.0	0%
								Change	-2.0	+0.28	+2.8	-25%

Source: Citi Research, TRACE
Note: As of October 14, 2013

Idea #2: Out-of-the-box rotation

Of course, there are many varieties of less liquid bonds. In Figure 12 we present five intermediate-termed REDUCE CANDIDATES that are relatively (emphasize relatively) liquid, are not favored by our single name strategist, and are widely held by the insurance companies we examined. These REDUCE CANDIDATES are currently yielding 3.2% and provide an ROC of 8.9%, while a generic single-A CLO currently provides a yield of 5.5% and a ROC of 18.3% (e.g., improvement of 9.4%). Food for thought…

Figure 12. Some single names are relatively liquid but trade at full valuations. Single-A CLOs may be an effective way to boost ROC

		REDUCE CANDIDATES					→	ADD CANDIDATE				
Issuer	Sector	Issue	Price	YTW	ROC	Liq Score		Issue	Price	YTW	ROC	Liq Score
ABIBB	Consumer Staples	6.875s of '19	124.1	2.57	8.6	21%		Single-A CLO	—	5.48	18.3	0%
DD	Basic Materials	3.625s of '21	103.1	3.14	10.5	46%						
PNC	Financial	5.125s of '20	111.5	3.11	10.4	17%						
USB	Financial	3s of '22	97.6	3.33	11.1	46%						
WPZ	Energy	5.25s of '20	108.8	3.70	3.9	26%						
		Average	109.0	3.17	8.9	31%			—	5.48	18.3	0%
								Change	—	+2.31	+9.4	-31%

Source: Citi Research, TRACE
Note: As of October 14, 2013

Appendix A-1

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