December 8, 2015

Weekly Post: **An Alternative to Selling Loans to Agencies**

Dear Clients-

There are many advantages in selling newly originated conforming loans to FNMA and Freddie Mac. The origination and sale of loans generates fee income, isolated from the stress on capital, interest rate risk, credit risk and other related balance sheet risks. The sales process is operational and efficient. These benefits are particularly important in times when loan production volume is high, such as those years leading up to the financial crisis of 2007.

In recent years, loan production volume has been low and interest rate risk management processes have been enhanced. The benefits of selling loans to GSE should be reviewed and you might want to consider alternative balance sheet strategies such as:

Keeping the loans on the balance sheet as opposed to selling to the Agencies

Challenge

For illustrative purposes, let us consider a hypothetical $250mm community bank. The projected balance sheet is provided below. The balance sheet growth is flat with earnings at a breakeven level.

2015 Sept base

Pro-forma balance sheet items($000)

	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3
Total Assets	249,726	249,834	249,921	249,987	250,042	250,070	250,069	250,039
Cash & Short Term	37,197	37,305	37,392	37,458	37,513	37,541	37,540	37,510
INVESTMENTS	46,979	46,979	46,979	46,979	46,979	46,979	46,979	46,979
LOANS	160,783	160,783	160,783	160,783	160,783	160,783	160,783	160,783
OTHER ASSETS	4,767	4,767	4,767	4,767	4,767	4,767	4,767	4,767
DEPOSITS	206,648	206,648	206,648	206,648	206,648	206,648	206,648	206,648
BORROWINGS	0	0	0	0	0	0	0	0
FEDERAL FUNDS	7,849	7,849	7,849	7,849	7,849	7,849	7,849	7,849
OTHER LIABILITIES	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784
Equity	33,445	33,553	33,640	33,706	33,761	33,789	33,788	33,758

Currently, the bank is selling $5.9 mm 30 year 1-4 family fixed rate conforming loans to an agency, with a gain-on-sale to be 0.70% of the loan balance.

- Should the bank keep the $5.9 mm loan on the balance sheet instead of selling to the agency?
- How should the bank fund the loans?
- What are the impacts of this strategy on the balance sheet performance?

Solution

For this example we use a laddered FHLB advances funding with equal face amounts of:

- 1 year @ 0.59%,
- 3 year @1.46% and
- 5 year @2.11%

We can then use risk officer to simulate the financial projections and analyze the impact of the strategy on the bank's risk profile. In this simulation, we assume that the following:

- ALLL provision is 1%.
- Annual delinquency rate is 0.13%
- Recovery rate is 80%.

And therefore the charge off rate is 0.026%. The THC dashboard presents the impact of this simulated strategy on the balance sheet in the table below versus the base case.

		IRR			Liquidity		
Descriptions	EVE ratio (%)	duration	Earnings($000)	margin (%)	liquidity ratio	loan/deposit (%)	gap ratio(%)
Sept 2015 base case	17.12	5.81	382	3.46	14.48	82.92	-7.01
Simulated Strategy	16.80	5.97	443	3.43	14.14	85.94	-7.30

The results show that the strategies' impact on your capital, interest rate risk and liquidity risk.

The EVE ratio decreases by 0.32% as the balance sheet has grown. The funding duration is lower than the loan's duration, resulting in an increase of 0.17 years in the EVE duration. EVE % change under 400 bpt shocks drops 1.37%. The margin has lowered because of the higher funding cost. Liquidity is lowered: liquidity ratio (short-term asset to total asset) drops 0.34% and 0.29% instantaneously and in 12 months respectively, loan/deposit ratio increases by 3.02%.

The increase in risk should be balanced by the increase in earnings of $61,000 in the coming 12 months.

Numerical Example

The impact of the strategy on the financial projections should also be evaluated. First, we consider the variance of the balance sheets with and without the sale of loans projected over two years. Referring to the table below, as expected the loan balance, borrowings and ALLL have increased. Since the loans have increased in earnings, the capital increases gradually over the two year period.

2015 Sept base

Pro-forma balance sheet items($000)	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3
Total Assets	5,848	5,875	5,900	3,958	3,981	4,002	4,022	4,042
Cash & Short Term	288	529	768	-994	-790	-604	-419	-245
INVESTMENTS	0	0	0	0	0	0	0	0
LOANS	5,619	5,404	5,190	5,011	4,830	4,664	4,500	4,345
OTHER ASSETS	-59	-59	-59	-59	-59	-59	-59	-59
DEPOSITS	0	0	0	0	0	0	0	0
BORROWINGS	5,895	5,895	5,895	3,930	3,930	3,930	3,930	3,930
FEDERAL FUNDS	0	0	0	0	0	0	0	0
OTHER LIABILITIES	0	0	0	0	0	0	0	0
Equity	-47	-20	5	28	51	72	92	112

Next we analyze the impact on the projected earnings. Referring to the table below, the quarterly reported earnings is projected to be approximately $25,000. Since the loss of gain-on-sale is estimated to be 0.7% of $5.9mm, the breakeven is about nine months.

Pro-forma income statement($000)	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3
Cash & Short Term	0	0	1	1	-1	-1	-1	-1
INVESTMENTS	0	0	0	0	0	0	0	0
LOANS	60	57	55	53	51	49	47	46
OTHER ASSETS	0	0	0	0	0	0	0	0
Interest Income	60	58	56	54	50	48	46	45
DEPOSITS	0	0	0	0	0	0	0	0
BORROWINGS	20	20	20	20	18	18	18	18
FEDERAL FUNDS	0	0	0	0	0	0	0	0
OTHER LIABILITIES	0	0	0	0	0	0	0	0
Interest Expense	20	20	20	20	18	18	18	18
NET INTEREST INCOME	39	37	35	33	32	30	29	27
NONINTEREST INCOME	0	0	0	0	0	0	0	0
NONINTEREST EXPENSE	0	0	0	0	0	0	0	0
EXPENSE OTHER THAN	0	0	0	0	0	0	0	0
LOSS PROVISION	59	0	0	0	0	0	0	0
PROFIT BEFORE TAX	-19	37	35	33	32	30	29	27
TAX	-6	11	10	10	9	9	8	8
NET INCOME	-14	26	25	24	23	21	20	19

Keeping loans on the book can increase the bank's profitability. The increase in equity over time enables the bank to continue to keep more loans on the balance sheet. The increase in risk can be acceptable to the bank's risk profile. This example illustrates that keeping loans on the book can be significantly profitable while ensuring the bank's risk profile within risk policy limits.

Conclusion

THC gives you the ability to model your strategies and view the impact on your firm. Based on current market conditions of low interest margin and low loan origination, you might want to consider alternatives to selling loans to FNMA and Freddie Mac.

Risk models enable you to conduct risk and return analysis of alternative strategies to optimize your performance

Please do not hesitate to contact THC to analyze alternative ALM strategies to optimize your performance.

Regards,

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