Lending in the Midst of a Perfect Storm
A Risk- and Cost-Adjusted Approach to Pricing Loans

Thomas J. Parliment, Ph.D., Chairman & CEO

Parliment Consulting Services, Inc.

www.parlimentconsulting.com

508-277-1998

PCS PARLIMENT CONSULTING SERVICES

Challenging Financial Paradigms

What Is the Case for Lending?

- At the margin… you still need to grow as long as… the incremental income associated with lending is equal to or greater than the incremental cost of operating your financial institution… THEN YOU LEND!
- So… what exactly are these incremental yields and costs?

Developing a Minimum Acceptable Loan Yield Using An Approach of Risk- and Cost-Adjusted Pricing

- Identify the type of loan with its maturity and/or repricing characteristics along with specific credit risk components and operational servicing costs
- Determine the mathematical duration of the loan (the economic value of the cash flows associated with the loan)

Duration Based Pricing

Macaulay Duration (Years) of Fixed Rate Term Loans

(Assumes a 4.5% Coupon and 36 Month CPR Ramp)

Prepayment (CPR)	30 Year Term	25 Year Term	20 Year Term	15 Year Term	10 Year Term
0%	11.75 years	10.25 years	8.6 years	6.7 years	4.7 years
2%	8.9 years	8.2 years	7.1 years	5.9 years	4.25 years
4%	7.5 years	7.0 years	6.25 years	5.3 years	4.0 years
6%	6.6 years	6.2 years	5.7 years	4.8 years	3.8 years

Developing a Minimum Acceptable Loan Yield Using An Approach of Risk- and Cost-Adjusted Pricing (Pricing a 15 Year Fixed Amortizing Residential Mortgage)

Wholesale Equivalent			Retail Equivalent At the Margin	
Overnight	0.05	*Interest Rate Risk*	Credit Risk (includes ALLL Adjustment Stress Test Allocation)	1.00
Matched Duration Treasury (5 Year)	0.34		Liquidity Risk	0.00
Matched Duration Equivalent Investment (5 Year PAC CMO)	**1.49**	*Option Risk*	Operating Cost at Margin (Servicing Cost)	0.25
			Required Marginal Yield to Be Indifferent Between Loan and Investment	**2.74**

CAREFUL! This is NOT the actual loan rate!

PARLIMENT CONSULTING SERVICES
Challenging Financial Paradigms

Discussion of Stress Test
Allocation of Credit Risk

- Risk assessment of specific loan being considered (example 25bp)
- Consideration of general ALLL reserves required to accommodate accounting and regulatory expectations:
  - Often institutions are required not to allow the general loan reserves from falling below certain percentage
  - Use loan portfolio turnover ratio for adjustment. For instance, if loan turnover equals 25% of portfolio, and if our desired ALLL is 1%, then add 0.25% to the specific loan factor

Discussion of Stress Test Allocation of Credit Risk

- Additional reserve considerations related to the migration of forbearance loans to delinquent status in the post-forbearance period.
- This adjustment requires individual institutions perform vintage and migration analysis on specific loan types starting before the Pandemic and proceeding through the Pandemic. This requires a "special factor adjustment" based on the increased impairment of loans due to the impact of the Pandemic.
- Example:
  - Let's say out of $100 million of originations, 20% of these loans go into forbearance.
  - Assume that after coming out of forbearance, 25% migrate into delinquency, or $5 million.
  - And let's assume that the loss given default on the $5 million equals 10% exposure, or $500 thousand.
  - That would require a 0.50% additional adjustment in reserves.

Contact Us!

Strategic Financial Planning

and Strategic Deposit Analysis

Call us at 508-277-1998 or email

jflockwood@parlimentconsulting.com

to engage in these cost-effective services

Thomas J. Parliment, Ph.D., Chairman & CEO

Janet Lockwood, President

Parliment Consulting Services, Inc.

PCS PARLIMENT CONSULTING SERVICES

Challenging Financial Paradigms