IRR Exposure Survey Results

Don't miss the *Financial Managers Update* article, IRR exposure, based on the results of this survey.

Your Institution's Asset Size:		Number of Responses	Response Percentage
< $250 Million		69	30%
> $250 - $500 Million		53	23%
> $500 million - $1 Billion		56	24%
> $1 billion - $5 billion		44	19%
> $5 billion - $10 billion		9	4%
> $10 billion		2	1%
	Total Respondents	233	
	Number of respondents who did not answer	0	

Charter Type:		Number of Responses	Response Percentage
Commercial Bank		111	48%
Credit Union		39	17%
Thrift - OTS		44	19%
Thrift - FDIC		39	17%
	Total Respondents	233	
	Number of respondents who did not answer	0	

State:		Number of Responses	Response Percentage
AL		0	0%
AK		0	0%
AZ		3	1%
AR		1	0%
CA		15	7%
CO		3	1%
CT		4	2%
DE		0	0%
DC		0	0%
FL		6	3%
GA		4	2%
GU		1	0%
HI		2	1%
ID		2	1%
IL		16	7%
IN		5	2%
IA		3	1%
KS		4	2%
KY		3	1%
LA		1	0%
ME		1	0%

MD		4	2%
MA		25	11%
MI		7	3%
MN		5	2%
MS		1	0%
MO		6	3%
MT		3	1%
NE		2	1%
NV		2	1%
NH		1	0%
NJ		11	5%
NM		2	1%
NY		12	5%
NC		4	2%
ND		0	0%
OH		13	6%
OK		0	0%
OR		1	0%
PA		14	6%
PR		1	0%
RI		2	1%
SC		1	0%
SD		0	0%
TN		3	1%
TX		6	3%
UT		0	0%
VT		2	1%
VA		3	1%
VI		0	0%
WA		6	3%
WV		2	1%
WI		14	6%
WY		1	0%
	Total Respondents	228	
	Number of respondents who did not answer	5	

Percent of your assets in 15 & 30 year Fixed Rate Mortgages:		**Number of Responses**	**Response Percentage**
0 - 10%		113	48%
> 10 - 20%		57	24%
> 20 - 30%		28	12%
> 30%		35	15%
	Total Respondents	233	
	Number of respondents who did not answer	0	

Percent of your assets in ARMs with >1 year initial term:		**Number of Responses**	**Response Percentage**
0 - 10%		146	63%
> 10 - 20%		44	19%

> 20 - 30%		18	8%
> 30%		25	11%
	Total Respondents	233	
	Number of respondents who did not answer	0	

ALM Model used:		**Number of Responses**	**Response Percentage**
Bancware		12	5%
CUNA Model Manager		9	4%
Darling		14	6%
Farin		20	9%
IPS Sendero		50	21%
James Baker		4	2%
Profitstar		37	16%
QRM		4	2%
Risk Analytics		14	6%
Outsource		18	8%
Others (See Others)		51	22%
	Total Respondents	233	
	Number of respondents who did not answer	0	

Source of Prepayment Inputs:		**Number of Responses**	**Response Percentage**
Internal Estimates		109	47%
Regulator		41	18%
External Study		83	36%
	Total Respondents	233	
	Number of respondents who did not answer	0	

Source of Core Deposit Inputs:		**Number of Responses**	**Response Percentage**
Internal Estimates		145	62%
Regulator		38	16%
External Study		50	21%
	Total Respondents	233	
	Number of respondents who did not answer	0	

Exposure Limits are reviewed:		**Number of Responses**	**Response Percentage**
Quarterly		147	63%
Semi Annually		4	2%
Annually		62	27%
Other		19	8%
	Total Respondents	232	
	Number of respondents who did not answer	1	

Exposure Limits last reviewed:		**Number of Responses**	**Response Percentage**
Q1 - Q2 2005		179	78%
Q3 - Q4 2004		29	13%
Q1 - Q2 2004		14	6%

Q3 - Q4 2003		4	2%
Other*		4	2%
	Total Respondents	230	
	Number of respondents who did not answer	3	

***If other, enter the year your limits were last reviewed:**	**Total**
Total Responses: Respondents who did not answer:	9 224

***If other, enter the year your limits were last reviewed:**
2004
2002
monthly (4/2005)
Monthly
2003
monthly
2004
we review monthly
2005

What is your net interest income (NII) at risk policy limit for the following rate shocks?

	0-5%	>5-10%	>10-15%	>15-20%	>20-25%	>25-30%	>30-40%	>40%	Total
+400 BP:	3	5	5	12	8	5	2	7	47
+300 BP:	6	12	27	21	14	14	5	15	114
+200 BP:	10	48	35	22	14	12	6	6	153
+100 BP:	29	39	21	10	10	5	1	3	118
-100 BP:	32	37	23	9	8	6	1	3	119
-200 BP:	10	48	34	23	12	12	4	5	148
-300 BP:	5	10	25	20	12	13	4	14	103
								Total Respondents	153
								Number of respondents who did not answer	80

What has been your most recent Net Interest Income at Risk exposure experience for the following rate shocks?

	0-5%	>5-10%	>10-15%	>15-20%	>20-25%	>25-30%	>30-40%	>40%	Total
+400 BP:	15	7	6	7	2	4	0	4	45
+300 BP:	38	34	22	11	4	3	3	4	119
+200 BP:	74	48	17	9	3	2	2	1	156
+100 BP:	98	21	10	4	0	1	0	0	134
-100 BP:	92	25	11	2	3	1	1	0	135
-200 BP:	50	52	24	9	5	1	3	3	147
-300 BP:	23	19	20	10	6	2	2	4	86
								Total Respondents	156
								Number of respondents who did not answer	77

What are your changes in net interest income policy limits for the following rate ramps?

	0-5%	>5-10%	>10-15%	>15-20%	>20-25%	>25-30%	>30-40%	>40%	Total
+200 BP:	9	30	17	10	3	4	1	2	76
+100 BP:	18	21	9	3	2	4	0	1	58
-100 BP:	19	22	9	4	2	4	0	1	61
-200 BP:	7	30	16	10	3	4	1	2	73

Total Respondents	76
Number of respondents who did not answer	157

What has been your most recent net interest income at risk exposure experience for the following rate ramps?

	0-5%	>5-10%	>10-15%	>15-20%	>20-25%	>25-30%	>30-40%	>40%	Total
+200 BP:	51	23	2	3	0	1	0	2	82
+100 BP:	52	6	2	0	1	1	0	1	63
-100 BP:	53	7	2	0	0	1	0	1	64
-200 BP:	37	27	2	5	1	0	0	2	74
Total Respondents									82
Number of respondents who did not answer									151

What is your equity at risk policy limit for the following rate shocks?

	0-5%	>5-10%	>10-15%	>15-20%	>20-25%	>25-30%	>30-40%	>40%	Total
+400 BP:	3	6	4	3	6	5	6	9	42
+300 BP:	9	14	3	14	8	18	14	30	110
+200 BP:	9	18	20	33	22	16	22	7	147
+100 BP:	9	37	24	21	7	3	7	5	113
-100 BP:	8	36	24	19	8	3	5	5	108
-200 BP:	9	19	14	37	19	16	18	6	138
-300 BP:	7	12	4	7	11	16	12	22	91
Total Respondents									147
Number of respondents who did not answer									86

What has been your most recent equity at risk exposure experience for the following rate shocks?

	0-5%	>5-10%	>10-15%	>15-20%	>20-25%	>25-30%	>30-40%	>40%	Total
+400 BP:	9	9	7	4	5	4	3	1	42
+300 BP:	21	29	19	17	6	13	11	5	121
+200 BP:	33	51	33	20	12	7	2	1	159
+100 BP:	57	47	20	6	1	0	0	0	131
-100 BP:	72	33	19	4	1	0	0	0	129
-200 BP:	47	40	30	12	11	3	0	0	143
-300 BP:	27	15	18	7	6	5	4	4	86
Total Respondents									159
Number of respondents who did not answer									74

Rate your Board's level of understanding of what IRR exposure limits mean and imply for compliance status:		**Number of Responses**	**Response Percentage**
Poor		15	7%
Fair		80	35%
Satisfactory		111	48%
Excellent		23	10%
Total Respondents		229	
Number of respondents who did not answer		4	

Comments regarding your Board's understanding of IRR exposure limits:	Total
Total Responses: View Responses Respondents who did not answer:	46 187

Comments regarding your Board's understanding of IRR exposure limits:
Completely understood
Some members understand it to the excellent level, others, satisfacory. The Board has a solid understanding of IRR.
I don't deal with the Board. The CFO is the one that reports IRR risk to them.
I need to educate them more.
They rely on us to know what to do to stay within limits. Understanding of IRR is limited.
Not yet introduced to EVE
the complexity of the issue and the Board's lack everyday managment expertise hinder their understanding
improving over time
How does IRR exposure impact the banks operations
They have an overall understanding but struggle with the meaning of the results.
They are challenged by it and have a tendency to dismiss the subject as having little value.
The Board is educated monthly with Gap Report, EVE, and Income Simulation. They have a good understanding of the theory and our practice.
The Board understands the basics of the ALCO function.
There wasn't any way to "erase" mistaken clicks above for equity risk limits. They are only 30% for +/- 400bp, others bp moves are not spelled out.
We are beginning to train the board of directors and will need outside training for them
A represenative from Darling presents IRR to ALCO and BOD quarterly which includes some educational aspect.
We do not have limits on changes in equity. Policy limits are minimum equity ratios under various rate shocks.
they need a better understanding
It depends on the Director. The Investment Committee is pretty much on board (6 of 13 Directors).
Board is very conservative. Wants to minimize our IRR (i.e. prefer auto loans, personal loans).
The Board has limited knowledge of the complexities of the entire ALCO process.
I perceive the Board's view to be rather simplistic. There's little appreciation of the existence of risk-reward trade-offs.
External board members have some knowledge. Our advisory directors and exec. management understand IRR exceptionally well.
None
None....training constantly regarding these issues.
We have never had problems, so it is hard to get the board very interested.
Limited understanding of EVE.
ALCO represents Board with regard to ALM matters.
Complicated analysis and assumptions, especially in relating risk to Economic Value of Equity and capital exposure.
Fairly basic level of understanding, but improving.
They expect the IRR exposure measurements to be the same as NII projections; don't understand the need for 'static' balance sheet mode.
They get it well enough. We have consultants regularly visit to provide additional insight and analysis.
Some are good and others are not.
Board well informed and education being conducted.
Their understanding has improved over the years but could still use improvement.
I'm new to this Board, but I would say they have a limited understanding of IRR but they did survice the S/L crisis.
The Board understands exposure limits as well as the limitations of IRR measurments
A couple of members have a good understanding of what they mean and what the purpose of the limits are.

They really do not have a clue as to what the numbers mean, and how to use the numbers in decision making.
Since we review these reports monthly, the ALCO has a good feel for them and what they mean, at least in a relative sense.
We're getting better, gradually.
Board is composed of financial executives with a good to excellent knowledge of IRR theory and application
The Bank is investing more time in training the Board in IRR
Board has a broad understanding of IRR exposure limits; further education and understanding is needed.
They wondered how management arrived at the limits. Once that curiosity was satisfied, they were comfortable that reasonble restraints were in place.
Board Memebers have attended training courses and are involved with updating poilicies and procedures.

What is your biggest frustration regarding IRR exposure limits?	**Total**
Total Responses: Respondents who did not answer:	66 167
What is your biggest frustration regarding IRR exposure limits?	
No complaints	
Not frustrated	
Not having enough time to dig deeper into the dynamics of the balance sheet.	
Assumptions-Core Deposit,prepayments, Callable bonds. The lack or understanding of the IRR measurement at the Bank.	
I don't know.	
If you make the regulators happy it hurts bottom line net income.	
no response	
Each FDIC examiner seems to have a differrent hot button each exam. As a result, we keep adding IRR measures or procedures but we never seem to be able to shed prior measures.	
Using rate shock scenarios - we will probably move to using rate ramp scenarios.	
too tight, board wont change them	
Too many arbitrarily "recommended" by FDIC. It wants us to adopt EVE limits, but they can't tell me what EVE is used for (what it tells me about the balance sheet's composition and rate sensitivity that I didn't already know.)	
Ability to react to changes in the recent (last 2 years) yield curve	
regulators focus on rate shocks as a meaningful risk measure	
no frustration; limits are reasonable	
They are based on static assumptions and do not take into account all decisions management would consider during falling or rising rate enviroments.	
Ramping up makes sense while straight rate shock does not.	
Because of all the assumptions involved in modeling IRR, results should be reviewed with the expectation of reasonableness versus accuracy. Developing and supporting assumptions for the model, especially for non maturity shares, are ongoing and there seems to be a quest for accuracy versus reasonableness. Creating or getting various scenarios modeled is a challenge. It's either cost or time prohibitive.	
Difficult to compare institutions because there is no standard way to measure the risk. With all of the model assumptions it is hard to develop metrics in the industry to compare your own institution against.	
No real frustration. We are fairly conservative and do not model deposit rates dropping as fast as we are able to actually do in a rapid rate drop.	
They are based on static numbers using the current period in the analysis.	
The data are static.	

Accuracy of Data
The regulators don't understand IRR or core deposit funding.
Lack of understanding by regulators of the value of core deposits in mitigating IRR
accurate measurement
MVE is not a real world situation so percentage limits do not mean anything.
Time involved in calculations
not knowing what a "normal" or acceptable range would be--what do other banks do?
Not an issue until interest rates rise.
Need to enhance shocks with vectors.
Keeping data up to date in the model so I can run these reports
Back-proving accuracy.
Board is reluctant to increase our holding limits for 1st FRM's. Consumer credit-risk type of loans are hard to grow these days.
Identifying an industry standard that we can measure our exposure against.
Estimating deposit rate changes to interest rate changes.
Placing absolutes on data that for the most part is irrelevant, simply to satisfy the regulators. Managing NIM to me is far more important. The tools are good as a source, but cannot be the be all end all. Overall balance sheet management is the key.
Having some real basis for what the limits of risk to economic value of equity is a real challenge.
Equity @ risk, especially @ the 300 &400 basis point level. Rates don't move that fast immediately
The Board and regulators tend ot favor simple easy-to-understand limits. These tend to facilitate measurement of risk but do not facilitate maeasurement of reward foregone.
The Static nature of the targets. when a steep curve presents itself you ability to take advantage of it is limited.
Understanding that limits for rates up and rates down need not be the same exposure. Equally, that is a "rates up" environment, that the same exposure limits may not be appropriate.
If anything, it could be that too much latitude is given in certain cases.
No guidance as to the expectation of where we should be and little guidance on various assumptions that you can incorporate into the modeling.
That no one in senior management cares about NEV because "we will never sell the credit union." No matter how much I emphasize it's implications for future revenue, they think it does not matter.
Prepayments and core deposit rate movement.
Limits are dependent on base case rate level.
Generally ok with it; banks need to limit exposure. Certainly assumptions are voluminous, but it is a complicated modelling experience.
We are in the process of considering what to use for income at risk measure -either Int Inc @ Risk or Net Income @ Risk - as suggested by Farin. But not much comparability for Net Income @ Risk measurements.
Somewhat arbitrary.
That they are not established as 'trigger points' to prompt tactics to offset exposure.
They are arbitrary and computation of NII at risk is subject to substantial assumption and model risk.
surveys
The Volatility of recent years has made it difficult to have limits are both meaningful and give sufficent latitude.
No-one, examiners included has been able to get a firm handle or reach a consensus on the fair value of indeterminate maturity deposits
Core deposits and how they can impact the exposure limits.
Assumptions.
It boils everything down to one number (variation percentage) and does not factor in any decisions and changes that management could make. It also is immediate, parallel and sustained, which is never realistic.
None.
None - am very comfortable both with regulatory and internal limits.

its just a snap shot in time - swings in market intererst rates will cause swings in IRR model results depending upon where rates are at qtr end results can look good/bad.
IRR is based on many assumption, which make this entire exercise subjective.
the lack of input from regulators on a range of appropriate limits
Must manage to remain within Policy limits to eliminate criticism.
They do not take into account that each bank's balance sheet behaves differently in up versus down scenarios. Moreover, they overly constrain risk taking, which has definitely increased with margins shrinking. Instantaneous rate shocks of 200 basis points are also not very realistic.
The huge trade off between earnings, EVE, and the amount of risk you want to assume.
Unrealistic measurement of no delay in rate changes.

What would you want your examiners to most understand about your IRR exposure limits?	**Total**
Total Responses: Respondents who did not answer:	66 167
What would you want your examiners to most understand about your IRR exposure limits?	
No complaints	
No more than they need to know	
That IRR management is an ever changing process and we are always looking for ways to improve it.	
I don't know.	
How conservative the limits are	
The relationship between risk and net income. What the IRR means in the current economic enviroment.	
no response	
We don't manage to the limits - we manage to meet our business plan goals.	
Management is controlling risk by monthly meetings or more frequently as needed.	
That they are guidelines not absolutes	
that alternatives to rate shocks are effective IRR measurement techniques	
there may be a time when the best long- term course of action might be to exceed the limit	
Board of directors tolerance for interest rate risk.	
I sthat it is a measurement system for a point in time with certain anticipated rate changes and that actual exposure is minimized by shifting product expectations	
There is no such thing as a perfect IRR model - Exposure limits are guidelines - IRR model is a tool to help manage the Bank - assumptions play a huge role in the results - takes a lot of time to maintain the tool	
They should not be considered as the sole measurement of IRR. Managment staffs' plans and abilities to manage rates and balance sheet structure are critical.	
We can't manage to the NPV process from the OTS, but we stay within their minimal/moderate risk categories. If we managed the balance sheet purely by managing the NPV shocks, we would have to give up margin.	
Our limits are based on the minimum amount of Net Income needed to maintain Well Capitalized status, pay overhead, and pay dividends. They are not actually percentage driven.	
We back-test the model annually to prove our process works.	
That they weren't selected just to be able to be within the limits. There was a thought process involved in setting them.	
Risk, Risk, and Risk and how to abate it. **Assumptions on input are for the 12 month time frame.	
It takes a certian amount of interest rate mismatch to make money. They think any IRR is bad. They seem to focus on the individual items IRR rather than the big picture as a whole.	
The conservatism of the core deposit assumptions.	
There are mitigating factors involved. MVE can be the opposite of NII.	

Market conditions have a tremendous impact on our ability to construct our balance sheet in the manner they wish
We can sell assets to offset declines in value of MSA in case of a rate decline.
That it's an estimate based on model assumptions and not historical experience (i.e. changes in mix), not necessarily a prediction of what will happen.
That I understand IRR and what it means to our credit union.
A shock is not realistic; they should be satisfied with a ramp scenario to measure against risk limits.
At our size, we can plan to minimize damage, but are not in a position to perfectly hedge all exposure.
Our core deposit base allows us to take on more IRR by holding more fixed rate mortgages.
That they are reasonable and manageable.
That we monitor it quarterly and make strategy changes as needed.
That our assumptions are very conservative and probably overstate our sensitivity
They are set based upon industry and consultant recommendations. Back-testing the models used will indicate how many other factors are affecting your IRR and overall ALCO program.
That the established risk limits are tools for managing interest rate and are part of the overal process and not black and white measures to be complied with at all costs.
Same answer as item 20. Examiners were just here and were fine with our risk & how controlled
Same as #20.
They are relative to the rate environment.
That the limits should in fact be "guidelines" and that being out of guidelines need not be a bad thing as long as the Board is aware of the consequences of what actions would need to be taken to correct...not that such actions would be in the best interest of the Bank.
For the typical commercial bank with very few long term mortgages, too much time is spent on this area. Also, our ability to generate core deposits is generally under appreciated.
Everything
We are concerned with the risk of rates falling as well as rising.
That the limits are intended to reduce income volatility and the amount of capital exposure to severe interest rate shocks. In addition, I want them to know what our bias is with respect to rates, is our ALCO strategy consistent with the bias we carry in our balance sheet, and is the that bias (asset sensitive or liability sensitive) within risk tolerances as established by the board.
That they measure a static balance sheet, not a managed balance sheet.
IRR exposure is just a 'measurement' in time and not a true forecast of a bank's risk to the FDIC insurance fund. Banks facing IRR exposure have time and many opportunities to adjust their balance sheets to mitigate IRR exposure.
Information from IRR modeling has far more limited decision-making value than regulators (and consultants) believe. A good ALM model will do a good job forecasting near term NII for budget purposes but to rely on it to make on- and off-balance sheet composition decisions is dangerous and can lead to a perpetual cycle of poor decision-making.
Not an issues here as we take on very little IRR.
Beleived to be fair.
That you cannot predict future income from end of month numbers.
That the limits are conservative and yet provide enough room for us to reasonably manage the business in a variety of interest rate environments.
That you need to look at the different limits in context and if you exceed a bps limit but still have capital above book value there's not necessarily a need to panic.
The reason and the benefits of our use of a 2-tiered sensitivity limit
We focus more on NII and believe we have used conservative limits. Also becuase of our low loan to assets ratio we have taken more risk in the investment portfolio to generate earnings.
We're doing the best we can, and if our exposure is low, then GET OFF MY BACK!
The are relatively high, but our board realizes we have interest rate risk embedded in the balance sheet and we do a good job of managing this risk.
OTS uses their own assumptions regarding non-maturity deposits. These assumptions don't necessarily reflect the actual rate sensitivity at individual banks.

FDIC has been very knowledgable. They seem to want only to verify that we know what we're doing.
That we both have the same goals. We're not in this to gamble our members money or to take unmanaged risk. Our IRR policies and practices are designed to manage risk within realistic and reasonable exposure limits.
see answer to #20.
Recognize the benefits of the cash flow from our loan portfolio.
Documentation efforts are excessive in order to provide sufficient regulatory support.
Rate shocks are not reality. Rate ramps should be used to measure an institutions risk exposure under normal circumstances.
It would be helpful for the examiners to understand the make-up of the portfolio better. As mentioned above, a bank which assumes greater risk (ie personal loans) generally makes a trade off for lower EVE and NII. On the other hand, the bank that tries to limit the charge-off risk will most likely see higher EVE. This is also the case between keeping NII low while EVE is higher.
Decay Rates - Assumptions should be more realistic. NCUA requirements too strictly conservative.

***Other ALM Model used:**
Plansmith
Basis
OTS Risk Report
FTI Financial Technologies’ Asset/Liability Management and Financial Planning System
plansmith
C Myers Corp
Internal model
CUPro
OTS model
Plansmith
FMSI
Brick ALM
Plansmith's Compass
BSMS
ots
Mc Planning
ALX Consulting, Inc.
MC Planning
Internal designed
Intercept Risk Monitor
Plansmith Compass
Brick & Assoc
OTS
PALMS
OTS
Plansmith Compass
Plansmith
Compass/Plansmith
RiskMonitor - Plansmith
oLSEN RESEARCH
Plansmith/Compass
Internal
Plansmith
FinSer

Wells Fargo
Manual
Plansmith
OTS
Plansmith
Brick & Assoc.
in house model
James Baker & Profitstar
Internal
OTS
none
OTS NPV Model
in house model
ots
OTS
Plansmith-Risk Compass
A/L Banchmarks

Read the *Financial Managers Update* article, IRR exposure, based on the results of this survey.

Print Version