

# Five Timeless Investment Principles for Financial Institutions

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# Five Timeless Investment Principles

1. Yield is not what you get
2. Total Yield™ or Total Return captures the risk/reward tradeoff of maturity and option risk versus yield
3. Conventional asset/liability methods can lead to poor investment decisions
4. There is a big difference between good and bad investing
5. There must be accountability for investment and A/L advice

# Principle #1: Yield is not what you get

**Axiom: Interest Income – Interest Expense = Profit**

## **Corollary #1:**

Purchase Yield (assets) – Issued Yield (liabilities) is not Profit

## **Corollary #2:**

Scenario analysis of income must be performed  
(a Yield Table does not qualify)

## **Corollary # 3:**

The future remaining tail risk must be addressed

# Yield is not what you get: An Example

		270 Mtge		YT				
		FNCL 7.5 N		7.5%				
		Generic:FNMA		ADV: <PAGE>				
		WAC <WAM> CAGE		Vectors 99 <Go>				
65 <GO> FNCL 7.5 N		8.020 <360> 0		next pay 7/25/00 (monthly)				
				Age 0: 0				
				rcd date 6/30/00 (24 Delay)				
				WAM 30: 0				
				accrual 6/ 1/00- 6/30/00				
				WAC 8.020				
6/13/00		<b>YIELD TABLE</b>						
Vary PRICE		180	105	115	135	550	1150	1800
		PSA	PSA	PSA	PSA	PSA	PSA	PSA
100		7.526	7.543	7.541	7.536	7.449	7.350	7.258
AvgLife		8.52	11.62	11.10	10.18	3.67	2.11	1.53
Mod Dur		5.44	6.67	6.47	6.11	2.96	1.86	1.39
DATE Window		7/00- 6/25/30	7/00- 6/25/30	7/00- 6/25/30	7/00- 6/25/30	7/00- 6/25/30	7/00- 1/25/16	7/00- 11/25/02
Spread		+127/AL	+137/AL	+136/AL	+134/AL	+93/AL	+77/AL	+79/AL
		Treasury Curve - <override>						
		<3m> <6m> <2> <3> <5> <10> <30>						
		5.69 6.24 6.58 6.56 6.43 6.19 5.94						
		Format# 1-YT		5y 93-16		10y 92-8		
Australia 61 2 9777 8600		Brazil 5511 3048 4500		Europe 44 20 7330 7500		Germany 49 69 920410		
Hong Kong 852 2977 6000		Japan 81 3 3201 8900		Singapore 65 6212 1000		U.S. 1 212 318 2000		
		Copyright 2006 Bloomberg L.P.						
		6747-1094-3 22-May-06 10:53:35						

# What Actually Happened

	7.50	7.00	6.50	6.00	5.50	5.00	4.50	Weighted Coupon
Jun-00	100%	0%	0%	0%	0%	0%	0%	7.50
Dec-00	92%	8%	0%	0%	0%	0%	0%	7.46
Jun-01	65%	35%	0%	0%	0%	0%	0%	7.33
Dec-01	40%	28%	32%	0%	0%	0%	0%	7.04
Jun-02	27%	23%	29%	22%	0%	0%	0%	6.77
Dec-02	15%	15%	19%	19%	0%	33%	0%	6.13
Jun-03	8%	8%	10%	12%	0%	30%	31%	5.49
Dec-03	5%	5%	6%	9%	17%	27%	30%	5.36
Jun-04	4%	4%	4%	7%	29%	24%	28%	5.30
Dec-04	3%	3%	3%	6%	26%	33%	26%	5.23
Jun-05	2%	2%	3%	5%	22%	42%	24%	5.17
Dec-05	2%	2%	2%	14%	19%	38%	23%	5.24
	Investment Period Weighted Coupon							6.07 vs. 7.50%
Price Dec-05	104-23	104-09	102-18+	100-28+	99-00+	96-28+	94-06+	

# Clearly Yield is not what you get

- Actual pool yield = 6.07%; Projected pool yield = 7.50%;  
Actual bullet agency yld = 6.75%; Projected bullet yld = 7.10%
- Look forward income: 5.24% weighted average vs. 7.10% bullet agency (4.5 years left)
- Weighted market value of pools is \$97.67 vs. \$109.5 for remaining 4.5 year bullet
- 7.50% purchase yield vs. 7.10% purchase yield
- Pool income \$3,894,000 vs. bullet agency \$4,438,000 (on \$10 million)
- Pool loss \$233,000 vs. bullet gain of \$954,000
- Net difference = \$1,731,000 shareholder value on \$10 million!

# **Principle # 2:** Total Yield™ or Total Return captures the risk/reward tradeoff of maturity and option risk versus yield

## **Corollary #1:**

Investments must be compared over the same investment horizon

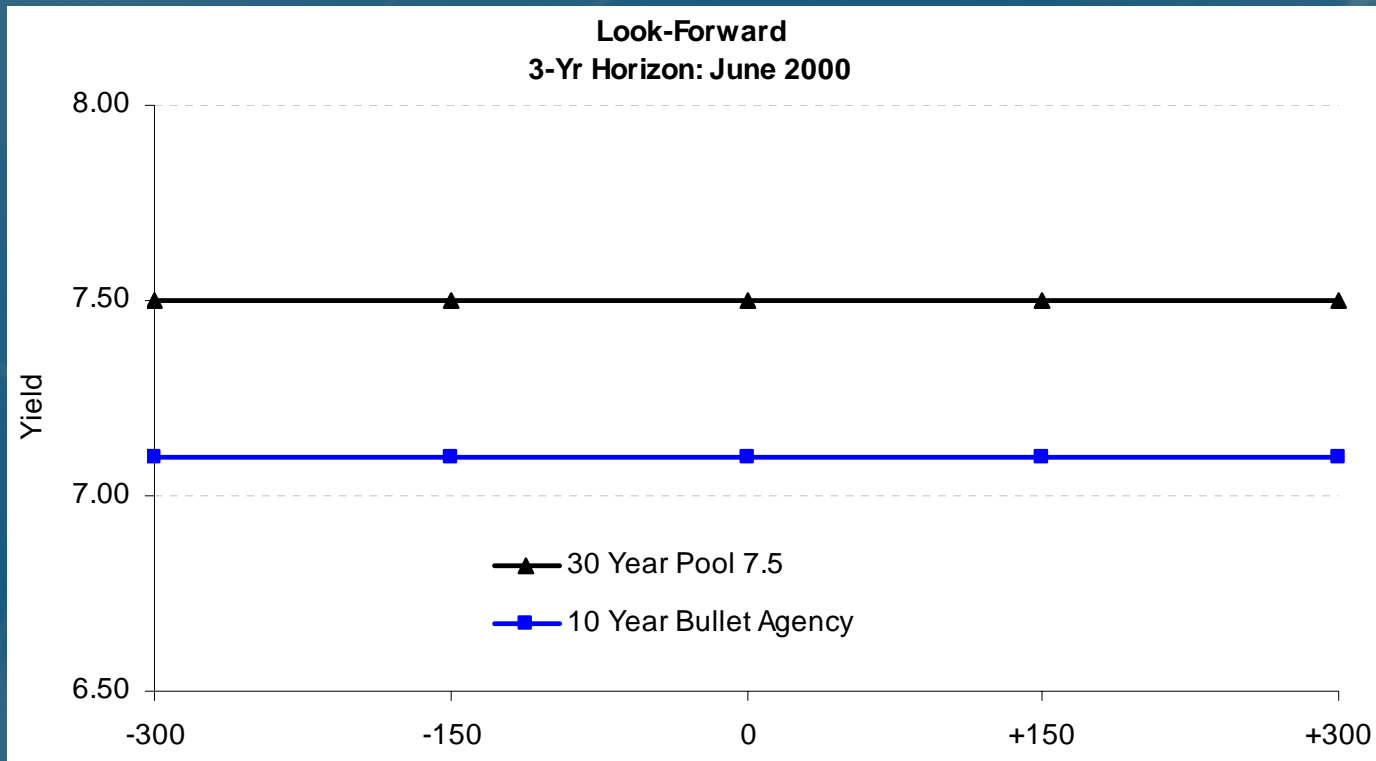
## **Corollary # 2:**

Simulating income to maturity via scenario analysis or discounting the present value of the cash flow to maturity via scenario analysis gives the same relative answer

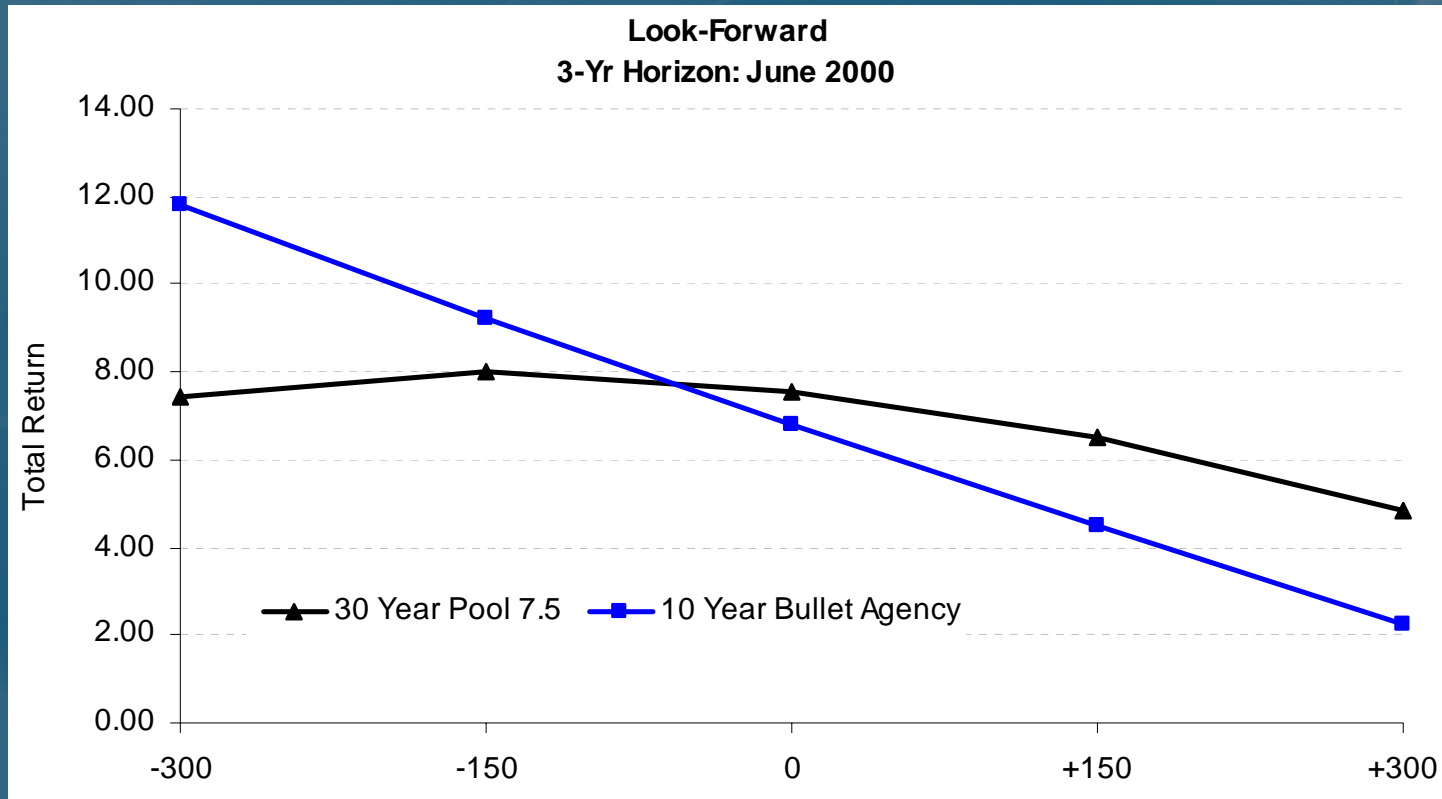
## **Corollary #3:**

Market Value is the discounted present value to maturity

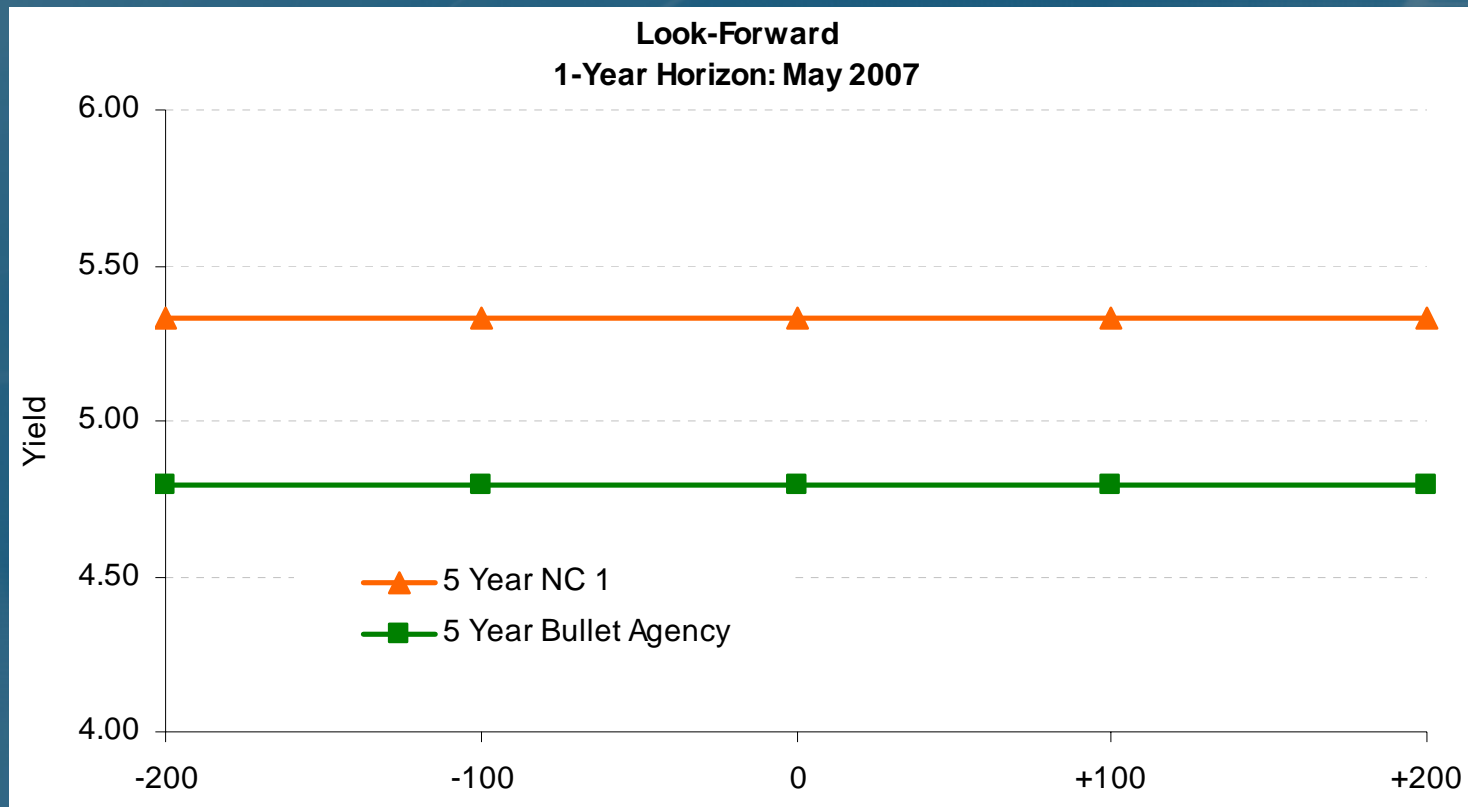
# Yield is Not What You Get



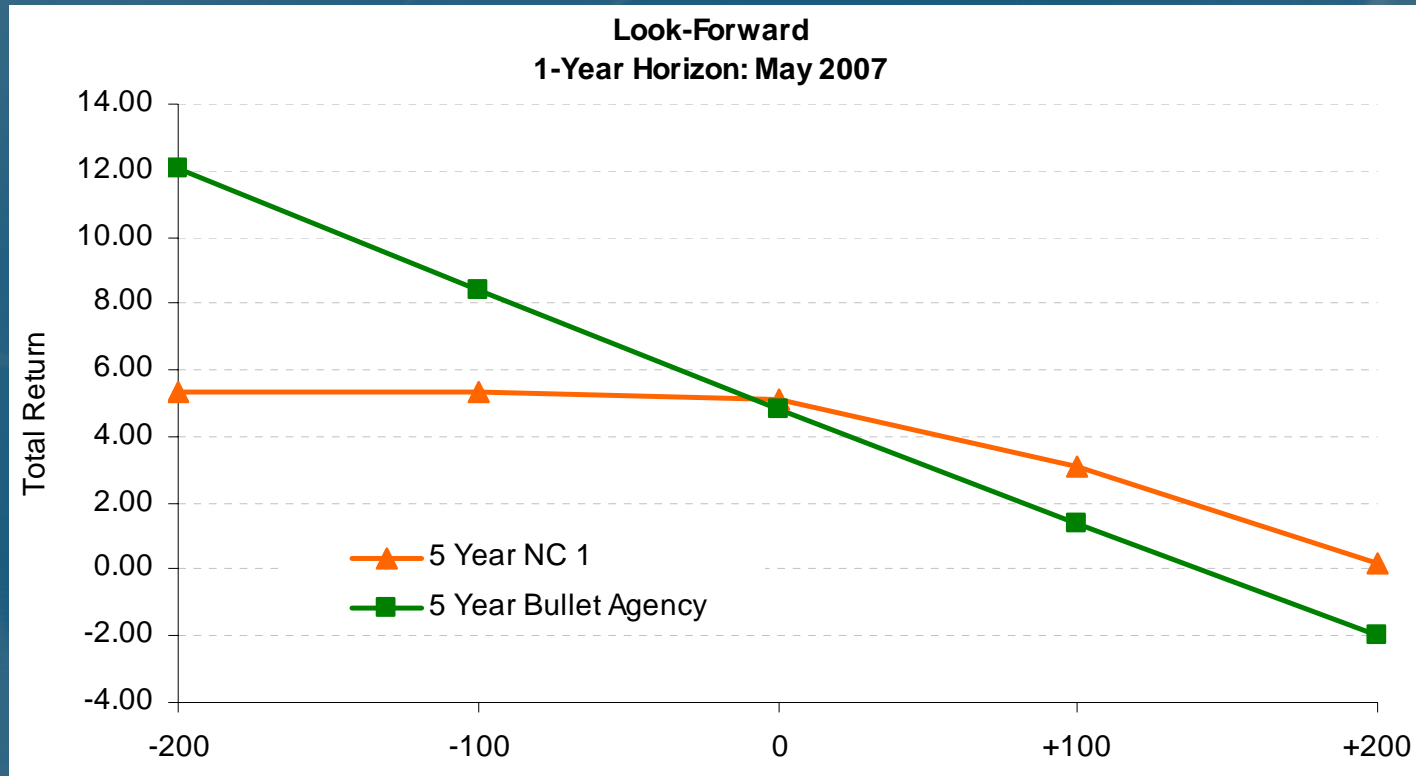
# Total Return: Evaluating Risk vs. Reward



# Another Example from Today



# Again, Total Return Provides a Clearer Picture



# Principle # 3: Conventional asset/liability methods can lead to poor investment decisions

## Corollary #1:

A one or two year income simulation ignores much of the maturity and option risk

## Corollary # 2:

If  $\text{Asset2} > \text{Asset1}$ , then  $(\text{Asset2} - \text{Liabilities}) > (\text{Asset1} - \text{Liabilities})$

## Corollary #3:

Good A/L management can't turn a bad asset into a good one

# **Principle # 4:** There is a big difference between good and bad investing (see also principles 1 and 3)

## **Corollary #1:**

The performance of the portfolio must be measured (UBPR is not what you get)

## **Corollary # 2:**

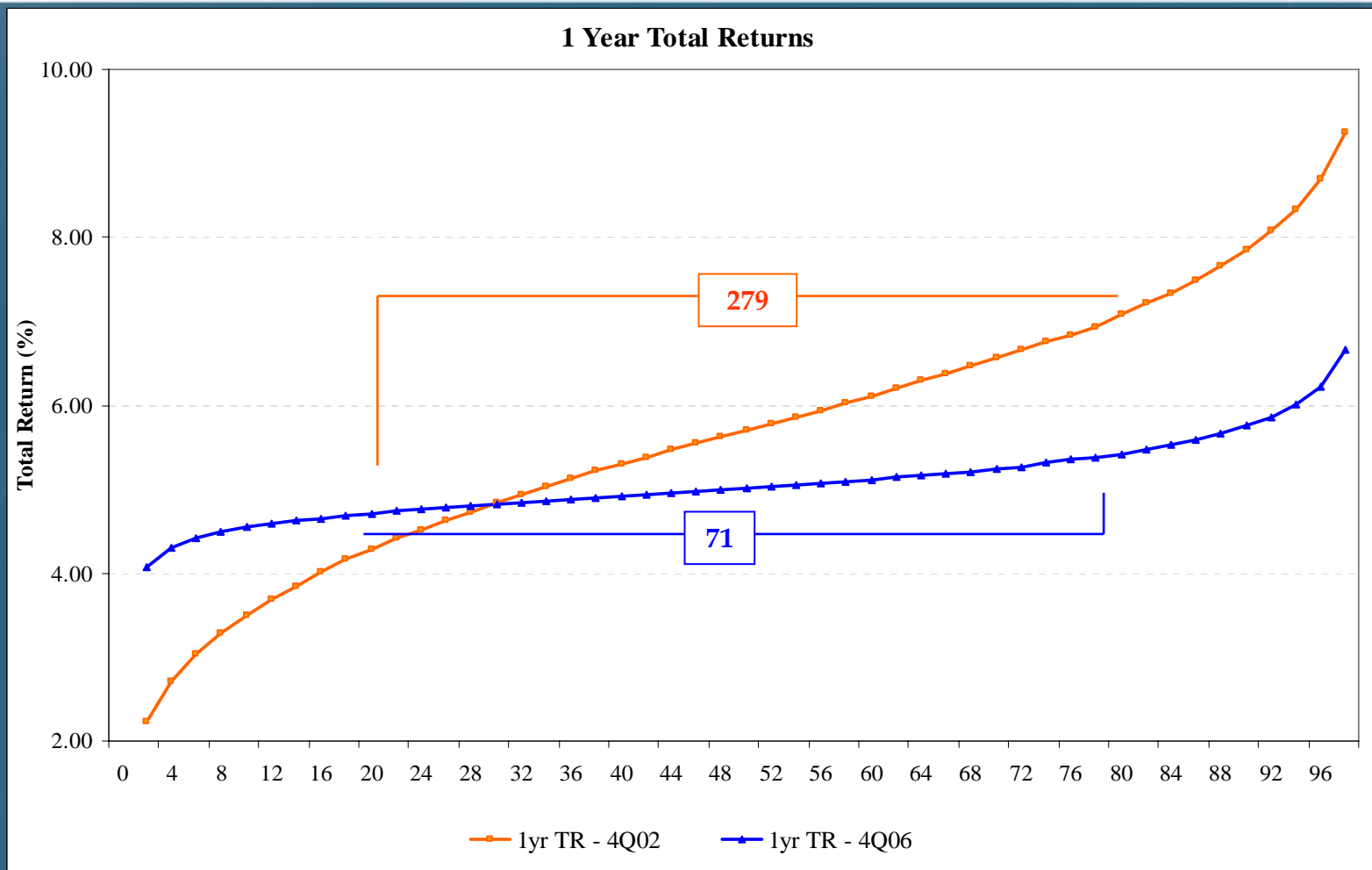
This difference is not simply due to interest rate guessing

## **Corollary #3:**

Poor risk/rewards can win in the short run

# There is a Big Difference Between Good and Bad Investing

## Total Return Differential: 20<sup>th</sup> vs 80<sup>th</sup> percentile



# There is a Big Difference Between Good and Bad Investing

## Total Return Differential: 20<sup>th</sup> vs 80<sup>th</sup> percentile



# Principle # 5: There must be accountability for investment portfolio and asset/liability advice

## Corollary #1:

Not all ideas have the same merit

## Corollary # 2:

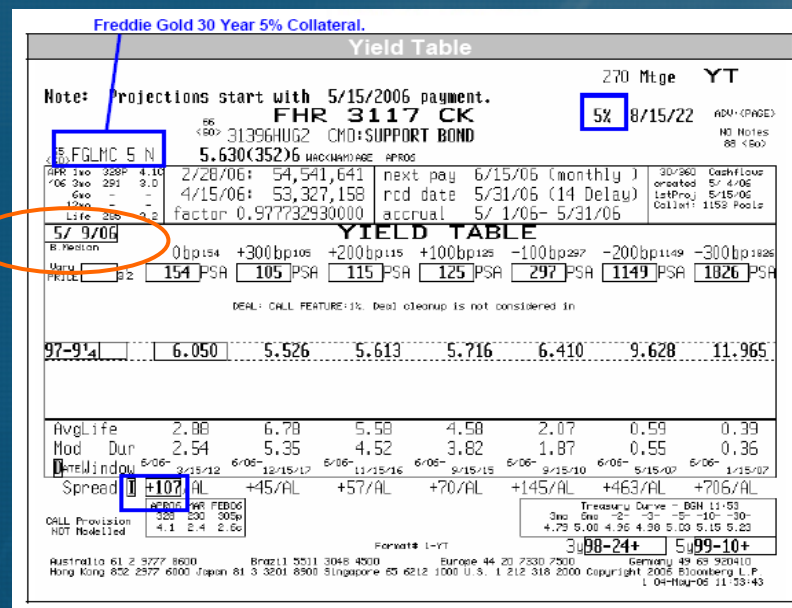
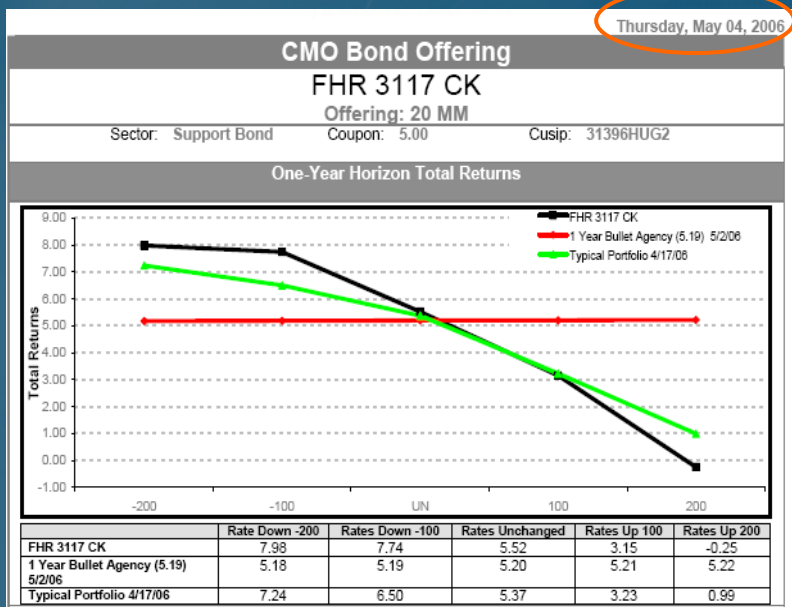
Hindsight is 20/20...only if you look

## Corollary #3:

Look-Backs<sup>®</sup> can make for better Look-Forwards<sup>®</sup>

# Accountability

## A Brief Look-Back<sup>®</sup> at an Intermediate WAL CMO



# This bond performed near expectation

## 1 Year Later and Rates Down 25ish basis points...

	5/09/06	5/21/07	Change
3 MONTH	4.875	4.830	-0.0454
6 MONTH	5.020	4.955	-0.0644
2 YEAR	4.958	4.797	-0.1613
3 YEAR	4.974	4.727	-0.2472
5 YEAR	5.007	4.711	-0.2967
10 YEAR	5.121	4.782	-0.3391
30 YEAR	5.198	4.938	-0.2596

HISTORICAL TOTAL RETURN					
FHR 3117 CK SUPPORT BOND		5.000%	Original Face:	10,000,000.00	
<b>SUMMARY</b>	Factor	Tranche Bal	Price	P + I + Reinv	Total Value
Start:	5/ 9/06	May 9,692,792.40	97-9		9,440,039.38
End:	5/21/07	May 8,212,144.90	98-5	1,978,988.41	10,062,533.40
Mode:	<input type="checkbox"/> B-Book, <input type="checkbox"/> T-Trade	<b>6.276% CBE RETURN</b> 6.594% holding period return			
Method:	<input checked="" type="checkbox"/> 1-CD, <input type="checkbox"/> 2-CBE				
					Reinv to 5.14

**FHR 3117 CK** 5% 8/15/22 ADU<PAGE>

31396HUG2 CMO:SUPPORT BOND NO Notes 88 <Go>

5.628(338)19 MAC(MM)AGE MAY07

Yield	PSA	104 PSA	110 PSA	125 PSA	420 PSA	1455 PSA	1665 PSA
5/24/07	161	104	110	125	420	1455	1665
5.880	5.350	5.375	5.485	7.086	14.677	16.807	

YIELD TABLE

30/360 DSCHNG 0bp161 +300bp105 +200bp109 +100bp124 -100bp418 -200bp1453 -300bp1667

DEAL: CALL FEATURE:1%. Deal cleanup is not considered in analytics for this bond

98-5

AvgLife 2.23 7.06 6.42 4.60 0.87 0.18 0.15

Mod Dur 1.99 5.56 5.13 3.82 0.81 0.17 0.14

DATEWindow 6/07- 4/15/12 6/07- 12/15/18 6/07- 5/15/18 6/07- 10/15/16 6/07- 3/15/09 6/07- 10/15/07 6/07- 9/15/07

Spread  +110/AL  +61/AL  +64/AL  +77/AL  +216/AL  +985/.25y  1198/.25y

CALL Provision NOT Modelled

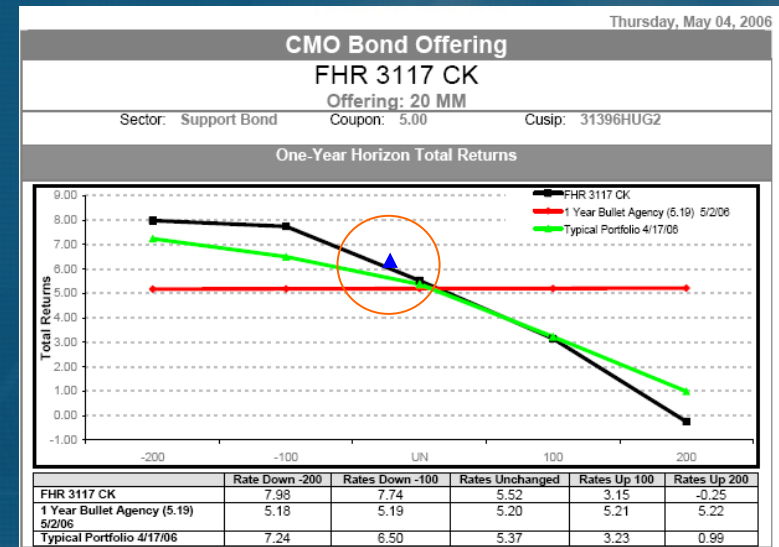
Treasury Curve - BGN 15:06

3mo 6mo 9mo 1y 2y 3y 4y 5y 6y 7y 8y 9y 10y 15y 20y 30y

4.83 4.97 4.80 4.73 4.71 4.78 4.94

2y99-14+ 3y99-12

Australia 61 2 9277 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 45 69 920410 Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2007 Bloomberg L.P. 6946-631-0 21-May-2007 15:07:00



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# For More Information

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