

YIELD CURVES: ALTERNATIVES TO THE PARALLEL SHIFT

Everyone is familiar with the market rate shock report. It is found in most Asset/Liability committee (ALCO) packages and usually consists of seven market rate scenarios; up and down 100, 200 and 300 basis points (bps) and a base case. This format assumes that all rates (points) on a yield curve move perfectly in tandem, hence the name “parallel shift”. Although this format is generally preferred by the regulators, it is quite unlikely that all the points on a yield curve will move in exactly the same direction and distance. The pure parallel shift only exists in the theoretical world.

Today, as market rates approach historical lows, most institutions are experiencing margin compression. Asset durations are very short and yields have fallen to lower levels, while deposit rates are reaching implied floors. Further, many believe that once rates start to climb, fierce competition to retain deposits will cause banks to raise deposit rates aggressively. Institutions may try to coax customers out of core and lock them into longer term time deposits, knowing low rate assets will extend in maturity as the incentive to refinance dwindles.

All of this means that bankers (and the examiners) are now paying more attention to Interest Rates and Market Risk Sensitivity. It is prudent to further your understanding of how changes in market rates will affect your margin and how you should be positioning yourself if rates rise, stay at current levels or continue to fall.

Asymmetrical Parallel Shifts:

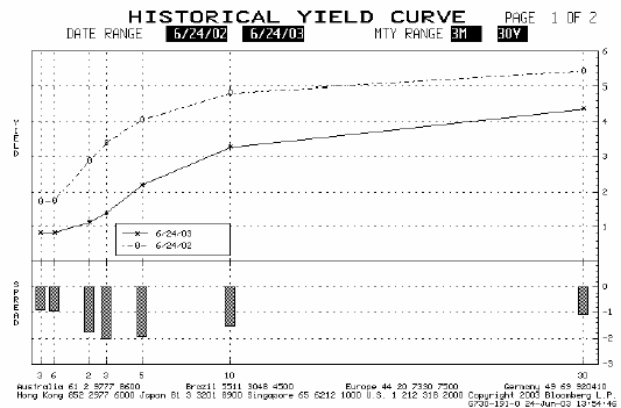
When modeling your institution, you usually look at parallel shifts in market rates. Given the current rate environment, it is time to look at some asymmetrical shifts in rising and declining market rates. For example, run the usual 100, 200 & 300 bps shifts on the up side, but in the down rate scenarios, run down 25, 50 and 75 bps if you are using parallel shifts.

Non-Parallel Shifts:

If we look at the Treasury yield curve at the end of June 2002 and 2003 respectively, we notice that there was almost an overall 100 bps parallel decline in Treasury rates in the short end and the long end of the curve. But, look at the 2 through 5 year points and notice the decline was closer to 200 bps. This could be particularly devastating to institutions that price loans tied to the 2, 3 or 5 year Treasury. You should identify the diversification of market rate indexes used by your lenders.

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DATE RANGE 6/24/02 6/24/03 MTY RANGE BM 30Y

	6/24/02	6/24/03	CHANGE
3 MONTH	1.720	0.915	-0.8054
6 MONTH	1.763	0.827	-0.9362
2 YEAR	2.072	1.119	-1.7530
3 YEAR	3.425	1.396	-2.0290
5 YEAR	4.005	2.181	-1.9049
10 YEAR	4.827	3.255	-1.5325
30 YEAR	5.454	4.379	-1.0749

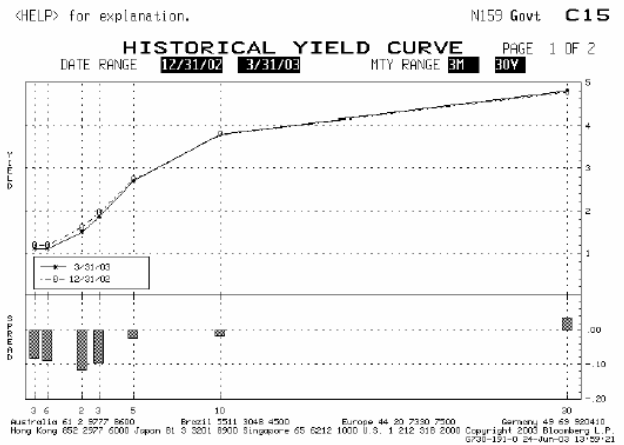
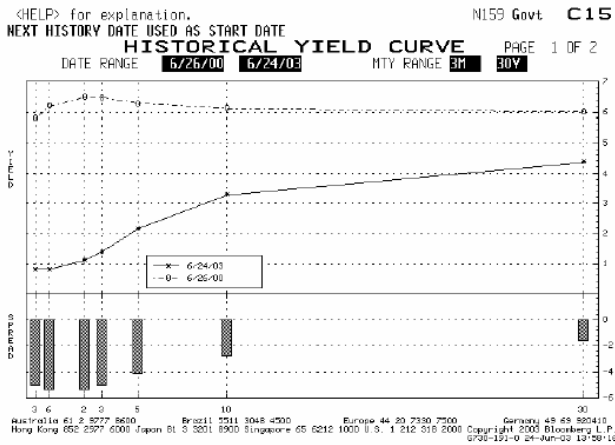
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Hong Kong 652 2527 6000 Japan 61 3 3201 8900 Singapore 65 0212 1000 U.S. 1 212 316 2000 Copyright 2003 Bloomberg L.P.
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Yield Curve Flattening:

As a reality check, a different approach could be to run yield curve twists. That is, to “twist” away from the current, normal (positively sloped) yield curve. One example could be by bringing up the short end of the curve 200 bps while only moving the long end 25 bps, effectively flattening the curve.

The graphic below shows how the Treasury yield curve shape has changed over the last three years (6/26/00 versus 6/24/03). It illustrates how short and intermediate-term rates fell around 500 bps while the 30 year point fell only about 160 basis points.

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 DATE RANGE 6/26/00 6/24/03 MTY RANGE 3M 30Y

	6/26/00	6/24/03	CHANGE
3 MONTH	5.796	0.815	-4.9810
6 MONTH	6.182	0.827	-5.3551
2 YEAR	6.401	1.119	-5.2823
3 YEAR	6.443	1.402	-5.0414
5 YEAR	6.270	2.164	-4.0856
10 YEAR	6.100	3.257	-2.8035
30 YEAR	5.978	4.378	-1.6002

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 DATE RANGE 12/31/02 3/31/03 MTY RANGE 3M 30Y

	12/31/02	3/31/03	CHANGE
3 MONTH	1.190	1.108	-0.0817
6 MONTH	1.204	1.114	-0.0934
2 YEAR	1.598	1.462	-0.1166
3 YEAR	1.958	1.863	-0.0950
5 YEAR	2.734	2.710	-0.0235
10 YEAR	3.614	3.756	-0.0176
30 YEAR	4.779	4.815	0.0364

Australia 61 2 5277 8620 Brazil 1511 3048 4500 Europe 44 20 7330 7500 Germany 48 69 820410
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No change in Rates, Change in Balance Sheet Structure:

You manage your institution dynamically, always trying to optimize your balance sheet for the current rate environment. Contrast the previous scenario with the fact that the curve on December 2002 was almost unchanged compared with March 2003. Consider how a change in your business plan can affect your position even if market rates hardly move in the short to intermediate term.

Also bear in mind that, when comparing the shape of a yield curve from period to period, you are seeing a static shape for those dates only. In the last example, we saw very little change in the shape and position of the Treasury curve on 12/31/2002 and 03/31/2003. It must be noted however that in January rates began to increase, and then fell again in the second half of the month. You have to consider not only the shape of the curve from period-to-period, but the volatility or changes in the shape of the curve between the periods.

The change in the shape of the yield curve depends on what two time periods are compared. It is easy to make a case for any of the above approaches as a supplement to running parallel shifts. Now, more than ever, you should know how your institution will fare in all the above scenarios.

Conclusion:

As a consequence of the low level of rates, tightened margins, prepayment and extension risk it is increasingly necessary to examine the risk inherent in your balance sheet. Both 'twisting' the yield curve and using asymmetric shifts allows you to examine possible extreme scenarios, and will serve as both a valuable supplement to the regular parallel examples and as a further guide/warning that will permit you to profitably position your institution for the future.

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