Correction: More attractive bear flatteners in USD

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Research analysts

Quantitative Strategies

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Using midcurves to add value to conditional curve trades

We recommend a 6m2y-6m3y2y bear flattener in USD for its 23bp pickup to forwards and total of 32bp pickup to spot. The 2y-3y2y spread is an extremely close proxy to a 2s10s spread trade (with a correlation of 99% over the past year). We find the midcurve bear flattener considerably more attractive than the typical 6m2y-6m10y bear flattener (which has only a 16bp pickup to forwards and a mere 11bp total pickup to spot).

Midcurve bear flatteners

Given the increased likelihood of a flattening in the US, driven in part by the more accommodative pace of tapering than many had expected, and the recent relatively weak economic releases, we initiate bear flatteners. And although 2s10s flatteners are not without their benefits, we look for better alternatives through midcurves, identifying 6m2y-6m3y2y bear flatteners for their higher pickup to forwards and higher carry.

We recommend going long $50.1mn 6m2y ATMF-23bp payers, short $53.5mn 6m3y2y ATMF payers at zero cost (using offer side for the package), for 23bp of pickup to forwards and an extra 9bp of carry, for a total pickup of 32bp to spot (see Figure 1) Given rates centred at spot (and spot vols), the probability of a positive payoff on the long payer leg is far higher (at 44.2%) than that of a loss on the short payer leg (at 32.4%).

Fig. 1: Zero-cost ATMF-23bp 6m2y- ATMF 2m3y2y bear flattener

23bp of pickup and 32bp of carry over 6m

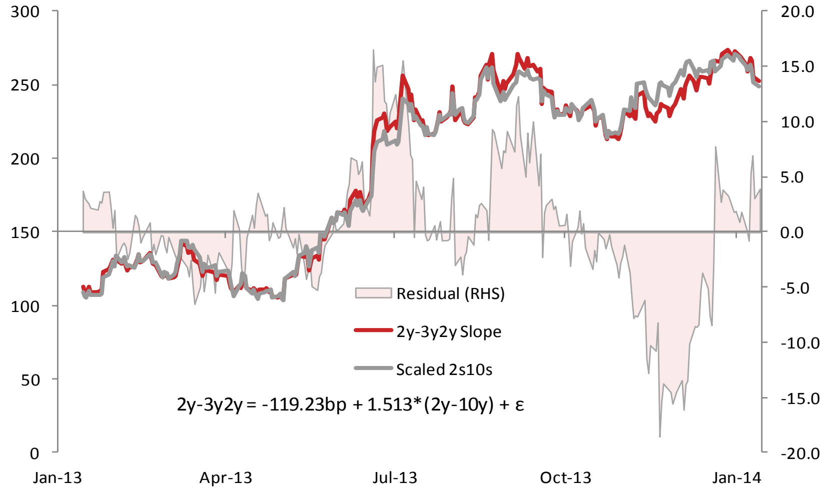
USD Bear Flattener 6m2y vs 6m3y2y, $10k/bp	Long Payer 6m2y	Short Payer Midcurve 6m3y2y	Spread (bp)
Spot	0.50%	3.01%	251.8
Forward	0.77%	3.38%	260.9
Strike	0.54%	3.38%	283.9
	ATMF-23	***ATMF***	***ATMF+23***
Pickup (bp)			
Fwd-Spot	-27	-36	9
Vol	23	0	23
Total	**-4**	**-36**	**32**
Z-Scores: Spot Vol-Normalized Pickup (no units)			
Fwd-Spot	-0.97	-0.46	
Vol	0.82	0.00	
Total	**-0.15**	**-0.46**	
Prob(Fwd(T)>Strike)	**44.2%**	**32.4%**	
Spot Vol	39.8	112.5	
ATMF Vol	50.8	120.7	
Implied Vol (strike)	41.4	120.7	

Source: Nomura Research

We recommend this trade in particular because of the high correlation to the 2s10s slope. In fact, with a correlation of 99% to 2s10s for the past year, the 2y-3y2y slope is a remarkably close proxy, as we note in figure 2. In econometrics terminology, we would expect the two spreads to be cointegrated, as in the residuals are stable and mean-reverting[1]. This then gives us confidence that our trade recommendation should capture the largest portion of any flattening dynamic (we note that the residuals, being mean-reverting are currently around 3.77bp (i.e., the 2y-3y2y slope is a bit steeper than the 2s10s indicates it should be) and we would then forecast to be 0.0+/-1.7bp in six months' time (i.e., they are normal with mean 0.0bp and stdev 1.7bp).

Fig. 2: The 2y-3y2y slope is essentially the same as 2s10s

Correlated and cointegrated-more volatile but with good tracking.



Source: Nomura Research

Standard 2s10s bear flatteners

For point of comparison, we see that a 2s10s bear flattener, long $50.1mn 6m2y ATMF-15.5bp payers, short $11.2mn 6m10y ATMF-16bp payers can be put on at zero cost (again using offer side for the package). This trade has a pickup to forwards of 16bp, but negative carry makes for a total pickup of 11bp (see Figure 3), considerably below that of the midcurve trade. The probability of making money on the long leg is 34.6%, and the probability of losing money on the short leg is 33.7%, given current vol levels.

Fig. 3: For comparison 6m 2y-10y bear flattener

Positive pickup but negative carry make It far less attractive

USD Bear Flattener 6m2y vs 6m10y, $10k/bp			
	Long Payer 6m2y	Short Payer 6m10y	Spread (bp)
Spot	0.50%	2.95%	244.9
Forward	0.77%	3.17%	240.4
Strike	0.61%	3.17%	256.4
	ATMF-16	***ATMF***	***ATMF+16***
Pickup (bp)			
Fwd-Spot	-27	-23	-5
Vol	16	0	16
Total	**-11**	**-23**	**11**
Z-Scores: Spot Vol-Normalized Pickup (no units)			
Fwd-Spot	-0.97	-0.42	
Vol	0.57	0.00	
Total	**-0.40**	**-0.42**	
Prob(Fwd(T)>Strike)	**34.6%**	**33.7%**	
Spot Vol	39.8	76.1	
ATMF Vol	50.8	79.6	
Implied Vol (strike)	44.2	79.6	

Source: Nomura Research

While the 2s10s conditional bear steepener is still a relatively attractive trade, we believe that the midcurve trade is considerably better in terms of vol pickup and in terms of carry, all effectively translating into a much higher likelihood of making a profit.

[1] We find the residuals to be mean reverting at the 5% confidence level using the ADF test with lag structure chosen by Bayesian Information Criterion.

The trade in detail

The trade has zero cost, while it can be entered into at a spread a full 23bp steeper than forward spreads and 32bp steeper than spot. It has a reasonably large curve delta due to the long being struck so far ITM, while it has negative vega, a consideration should it need to be unwound. Meanwhile, it benefits from a positive gamma, again owing to the relative moneyness of the options. Aging the swaptions for 3m, we see a modest roll-down return of $4.8k.

Fig. 4: Risks to the trade

USD Bear Flattener 6m2y vs 6m3y2y, $10k/bp Trade Risks								
Trade	Notional $	Spot %	Fwd %	Strike	Premium	Delta $/bp	Vega $/bp	Gamma $/bp2
Payer 6m2y	50MM	0.49	0.76	ATMF-23	265,448	7,295	1,781	155
Payer Midcurve 6m3y2y	-54MM	3.03	3.39	ATMF	-265,448	-3,472	-3,476	-44
		2.54	2.63	ATMF+23	0	3823	-1695	111

Source: Nomura Research

Buy $50.1mn 6m2y ATMF-23bp (0.53% strike) payers and sell $43.5mn 6m3y2y ATMF (3.39% strike) payers for zero cost.

Appendix A-1

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