function [curve] = makeSmile(fwdCurve, T, cps, deltas, vols)

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% Inputs:

% fwdCurve: forward curve data

% T: time to expiry of the option

% cps: vetor if 1 for call, -1 for put

% deltas: vector of delta in absolute value

% vols: Implied Vol [1 \* n]

% Outputs:

% curve.pp:

% struct in interpolation

% curve.AL, curve.BL, curve.AR, curve.BR:

% coefs in extrapolation

Target:

Construct a function that interpolates the smile in strike for a given tenor T, and then design an extrapolation scheme as following formula:

Steps of implementation:

1. Check for invalid input.

2. Calculate K and C for each option (Input fwd, T, cps, vols and deltas).

3. Check for no arbitrage constraints.

4. Calculate natural cubic spline coefficients with function csape.

5. Calculate extrapolation coefficients with mathematic definition.