Help

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#if defined(PremiaCurrentVersion) && PremiaCurrentVersion < (2011+2) //The "#els
#else

#ifndef _LIBOR_AFFINE_FRAMEWORK_H
#define _LIBOR_AFFINE_FRAMEWORK_H

#include <stdio.h>
#include <stdlib.h>
#include <
href../../../common/math/cdo/cdo_math_h_src.pdfmath.h>

#include "pnl/pnl_vector.h"
#include "pnl/pnl_matrix.h"
#include "pnl/pnl_mathtools.h"

#include "
href../../../common/math/read_market_zc/InitialYieldCurve_h_src.pdfmath/read_mar

#define phi_psi_t_v(t,v,LiborAffine,phi_i,psi_i) (((StructLiborAffine*)LiborAffi

typedef struct StructLiborAffine
{
  PnlVect *TimeDates; // Time Grid
  PnlVect *MartingaleParams;  // The parameters u_1,...,u_N, chosen in order to
  PnlVect *ModelParams; // Parameters of the driving process X, supposed to be a
  ZCMarketData *ZCMarket; // Structure that containts initial zero coupon bond.

  // Return the value of the 2 functions Phi and Psi in the Moment Generating Fu
  void (*phi_psi)(PnlVect *ModelParams, double t, dcomplex u, dcomplex *phi_i, d

  // Return maximum of the interval I_T, where Moment Generating Function is wel
  double (*MaxMgfArg)(PnlVect *ModelParams, double T);

} StructLiborAffine;


// Calibration of martingale parameters to match the initial zero coupon curve.
void CreateStructLiborAffine(StructLiborAffine *LiborAffine, ZCMarketData *ZCMar
                             double T0, double TN, double Period, PnlVect *Model
```

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                                    void (*phi_psi)(PnlVect *, double, dcomplex, dcompl
                                    double (*MaxMgfArg_cir1d)(PnlVect *, double));

// Moment generating function of X(Ti) under the for forward measure P(T_fwd_mea
dcomplex MomentGF_XTi_PTk(dcomplex v, double Ti, double T_fwd_meas, StructLiborA

// Moment generating function of X(Ti) under the for forward measure P(TN)
dcomplex MomentGF_XTi_PTN(dcomplex z, double Ti, StructLiborAffine *LiborAffine)

int indiceTimeLiborAffine(StructLiborAffine *LiborAffine, double s);
void FreeStructLiborAffine(StructLiborAffine *LiborAffine);

#endif
#endif
```