Help

```
#define WITH_formula 1
#include  "
href../../../mod/bs1d/bs1d_lim/bs1d_lim_h_src.pdfbs1d_lim.h"

static int CallDownIn_ReinerRubinstein(double s, double k, double l, double reba
{
  int phi, eta;
  double A, B, C, D, E, F;
  double dA, dB, dC, dD, dE, dF;

  phi = 1;
  eta = 1;
  formula(s, k, r, divid, sigma, t, l, rebate, phi, eta, &A, &B, &C, &D, &E, &F,
          &dA, &dB, &dC, &dD, &dE, &dF);
  if (k >= l)
    {
      *ptprice = C + E;
      *ptdelta = dC + dE;
    }
  else
    {
      *ptprice = A - B + D + E;
      *ptdelta = dA - dB + dD + dE;
    }
  return OK;
}

int CALC(CF_CallDownIn)(void *Opt, void *Mod, PricingMethod *Met)
{
  TYPEOPT *ptOpt = (TYPEOPT *)Opt;
  TYPEMOD *ptMod = (TYPEMOD *)Mod;
  double r, divid, limit, rebate;

  r = log(1. + ptMod->R.Val.V_DOUBLE / 100.);
  divid = log(1. + ptMod->Divid.Val.V_DOUBLE / 100.);
  limit = ((ptOpt->Limit.Val.V_NUMFUNC_1)->Compute)((ptOpt->Limit.Val.V_NUMFUNC_
  rebate = ((ptOpt->Rebate.Val.V_NUMFUNC_1)->Compute)((ptOpt->Rebate.Val.V_NUMFU

  return CallDownIn_ReinerRubinstein(ptMod->S0.Val.V_PDOUBLE, (ptOpt->PayOff.Val
```

```
                                        limit, rebate, ptOpt->Maturity.Val.V_DATE -
                                        r, divid, ptMod->Sigma.Val.V_PDOUBLE, &(Met
}


static int CHK_OPT(CF_CallDownIn)(void *Opt, void *Mod)
{
  Option *ptOpt = (Option *)Opt;
  TYPEOPT *opt = (TYPEOPT *)(ptOpt->TypeOpt);

  if ((opt->Parisian).Val.V_BOOL == FALSE)
    return strcmp(((Option *)Opt)->Name, "CallDownInEuro");
  return WRONG;
}

static int MET(Init)(PricingMethod *Met, Option *Opt)
{
  if (Met->init == 0)
    {
      Met->init = 1;
    }
  return OK;
}

PricingMethod MET(CF_CallDownIn) =
{
  "CF_CallDownIn",
  {{" ", PREMIA_NULLTYPE, {0}, FORBID}},
  CALC(CF_CallDownIn),
  {{"Price", DOUBLE, {100}, FORBID}, {"Delta", DOUBLE, {100}, FORBID} , {" ", PR
  CHK_OPT(CF_CallDownIn),
  CHK_ok,
  MET(Init)
} ;
```