```
   Help
#include  "bs1d_lim.h"

static int PutUpOut_ReinerRubinstein(double s,
    double k,double l,double rebate,double t,double r,
    double divid,double sigma,double *ptprice,double *ptde
    lta)
    {
    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=B-D+F;
        *ptdelta=dB-dD+dF;
        }
    else
        {
        *ptprice=A-C+F;
        *ptdelta=dA-dC+dF;
        }

    return OK;
    }

int CALC(CF_PutUpOut)(void*Opt,void *Mod,Pricing
    Method *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)->Compu
```

```
    te)((ptOpt->Limit.Val.V_NUMFUNC_1)->Par,ptMod->T.
    Val.V_DATE);
    rebate=((ptOpt->Rebate.Val.V_NUMFUNC_1)->
    Compute)((ptOpt->Rebate.Val.V_NUMFUNC_1)->Par,ptMod-
    >T.Val.V_DATE);

    return PutUpOut_ReinerRubinstein(ptMod->S0.
    Val.V_PDOUBLE,(ptOpt->PayOff.Val.V_NUMFUNC_1)->
    Par[0].Val.V_PDOUBLE,
        limit, rebate,ptOpt->Maturity.Val.V_DATE-
    ptMod->T.Val.V_DATE,r,divid,ptMod->Sigma.Val.V_PD
    OUBLE,
        &(Met->Res[0].Val.V_DOUBLE),&(Met->Res[1]
    .Val.V_DOUBLE));
    }

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

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

static int MET(Init)(PricingMethod *Met)
    {
    return OK;
    }

PricingMethod MET(CF_PutUpOut)=
    {
    "CF_PutUpOut",
        {{" ",END,0,FORBID}},
        CALC(CF_PutUpOut),
        {{"Price",DOUBLE,100,FORBID},{"Delta",
    DOUBLE,100,FORBID} ,{" ",END,0,FORBID}},
        CHK_OPT(CF_PutUpOut),
        CHK_ok,
        MET(Init)
```

```
} ;
```

References