```
   Help
#include  "dps_std.h"
#include  "math/equity_pricer/levy_diffusion.h"
#include  "math/equity_pricer/carr.h"


#if defined(PremiaCurrentVersion) && PremiaCurrentVersion <
     (2010+2) //The "#else" part of the code will be freely av
    ailable after the (year of creation of this file + 2)
static int CHK_OPT(CF_AttariDPS)(void *Opt, void *Mod)
{
  return NONACTIVE;
}
int CALC(CF_AttariDPS)(void*Opt,void *Mod,PricingMethod *
    Met)
{
return AVAILABLE_IN_FULL_PREMIA;
}
#else

int CALC(CF_AttariDPS)(void *Opt, void *Mod, PricingMethod
    *Met)
{
  TYPEOPT* ptOpt=(TYPEOPT*)Opt;
  TYPEMOD* ptMod=(TYPEMOD*)Mod;
  NumFunc_1 *p;
  double jump_drift;
  int option_type;
  int std=1;
  Option_Eqd *op;
  DPS_diffusion *Process= DPS_diffusion_create(ptMod->Eta.
    Val.V_PDOUBLE,
                                                ptMod->Ka
    ppa.Val.V_PDOUBLE,
                                                ptMod->Rh
    o.Val.V_PDOUBLE,
                                                ptMod->Th
    eta.Val.V_PDOUBLE,
                                                ptMod->Si
    gma0.Val.V_PDOUBLE,
                                                ptMod->Mea
```

```
nS.Val.V_PDOUBLE,
                                                    ptMod->Si
gmaS.Val.V_PDOUBLE,
                                                    ptMod->Lam
bdaS.Val.V_PDOUBLE,
                                                    ptMod->Mea
nV.Val.V_PDOUBLE,
                                                    ptMod->Lam
bdaV.Val.V_PDOUBLE,
                                                    ptMod->Mea
nSV.Val.V_PDOUBLE,
                                                    ptMod->Si
gmaSV.Val.V_PDOUBLE,
                                                    ptMod->Mea
nVS.Val.V_PDOUBLE,
                                                    ptMod->Lam
bdaSV.Val.V_PDOUBLE,
                                                    ptMod->Rh
oSV.Val.V_PDOUBLE,
                                                    &jump_drif
t);
  Levy_diffusion * Levy =Levy_diffusion_create(Process,
&DPS_diffusion_characteristic_exponent,&DPS_diffusion_ln_
characteristic_function);
  p=ptOpt->PayOff.Val.V_NUMFUNC_1;
  if ((p->Compute)==&Call)
    option_type=1;
  else
    if((p->Compute)==&Put)
      option_type=2;
    else
      option_type=3;

  op=option_eqd_create(ptOpt->EuOrAm.Val.V_BOOL,option_
type,std,ptMod->S0.Val.V_PDOUBLE,p->Par[0].Val.V_DOUBLE,pt
Opt->Maturity.Val.V_DATE-ptMod->T.Val.V_DATE,0,0);
  option_eqd_set_rate(op,log(1.+ptMod->R.Val.V_DOUBLE/1
00.),log(1.+ptMod->Divid.Val.V_DOUBLE/100.));


  AttariMethod_Vanilla_option_LD(op,0.1,Levy);
```

```
      (Met->Res[0].Val.V_DOUBLE)=op->price;
      (Met->Res[1].Val.V_DOUBLE)=op->delta;
      free(op);
      free(Levy);
      free(Process);
      return OK;
}


static int CHK_OPT(CF_AttariDPS)(void *Opt, void *Mod)
{
  if ((strcmp( ((Option*)Opt)->Name,"CallEuro")==0)||(strc
    mp( ((Option*)Opt)->Name,"PutEuro")==0))
    return OK;

  return  WRONG;
}

#endif //PremiaCurrentVersion

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

  return OK;
}

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

```
};
```

References