Help

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#include "
href../../mod/hullwhite2d/hullwhite2d_h_src.pdfhullwhite2d.h"
#include "
href../../common/chk_h_src.pdfchk.h"
#include "
href../../mod/hes1d/hes1d_pad/model_h_src.pdfmodel.h"
#include "
href../../common/error_msg_h_src.pdferror_msg.h"
#include "premia_obj.h"
#include "
href../../common/enums_h_src.pdfenums.h"


double MOD(GetYield)(TYPEMOD *pt)
{
  VAR *Par;
  Par = lookup_premia_enum_par(&(pt->flat_flag), 0);
  return Par[0].Val.V_PDOUBLE;
}

char *MOD(GetCurve)(TYPEMOD *pt)
{
  VAR *Par;
  Par = lookup_premia_enum_par(&(pt->flat_flag), 1);
  return Par[0].Val.V_FILENAME;
}


static int MOD(Init)(Model *model)
{
  VAR *Par;
  TYPEMOD *pt = (TYPEMOD *)(model->TypeModel);

  if (model->init == 0)
    {
      model->init = 1;
      model->nvar = 0;

      pt->T.Vname = "Current Date";
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pt->T.Vtype = DATE;
pt->T.Val.V_DATE = 0.0;
pt->T.Viter = ALLOW;
model->nvar++;

pt->flat_flag.Vname = "Initial Yield Curve";
pt->flat_flag.Vtype = ENUM;
pt->flat_flag.Val.V_ENUM.value = 0;
pt->flat_flag.Val.V_ENUM.members = &PremiaEnumFlat;
pt->flat_flag.Viter = ALLOW;
model->nvar++;
Par = lookup_premia_enum_par(&(pt->flat_flag), 0);
Par[0].Vname = "Initial r";
Par[0].Vtype = PDOUBLE;
Par[0].Val.V_PDOUBLE = 0.03;
Par[0].Viter = ALLOW;
Par = lookup_premia_enum_par(&(pt->flat_flag), 1);
Par[0].Vname = "Yield Curve";
Par[0].Vtype = FILENAME;
Par[0].Val.V_FILENAME = NULL;
Par[0].Viter = FORBID;

pt->InitialYieldsu.Vname = "Initial u";
pt->InitialYieldsu.Vtype = PDOUBLE;
pt->InitialYieldsu.Val.V_PDOUBLE = 0.0;
pt->InitialYieldsu.Viter = ALLOW;
model->nvar++;

pt->aR.Vname = "Mean Reversion of r";
pt->aR.Vtype = PDOUBLE;
pt->aR.Val.V_PDOUBLE = 1.;
pt->aR.Viter = ALLOW;
model->nvar++;

pt->SigmaR.Vname = "Volatility of r";
pt->SigmaR.Vtype = PDOUBLE;
pt->SigmaR.Val.V_PDOUBLE = 0.01;
pt->SigmaR.Viter = ALLOW;
model->nvar++;

pt->bu.Vname = "Mean Reversion of u";
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```
      pt->bu.Vtype = PDOUBLE;
      pt->bu.Val.V_PDOUBLE = 0.1;
      pt->bu.Viter = ALLOW;
      model->nvar++;

      pt->Sigmau.Vname = "Volatility of u";
      pt->Sigmau.Vtype = PDOUBLE;
      pt->Sigmau.Val.V_PDOUBLE = 0.0145;
      pt->Sigmau.Viter = ALLOW;
      model->nvar++;

      pt->Rho.Vname = "Rho";
      pt->Rho.Vtype = DOUBLE;
      pt->Rho.Val.V_DOUBLE = 0.6;
      pt->Rho.Viter = ALLOW;
      model->nvar++;
    }
  Par = lookup_premia_enum_par(&(pt->flat_flag), 1);
  if (Par[0].Val.V_FILENAME == NULL)
    {
      if ((Par[0].Val.V_FILENAME = malloc(sizeof(char) * MAX_PATH_LEN)) == NULL)
        return MEMORY_ALLOCATION_FAILURE;
      sprintf(Par[0].Val.V_FILENAME, "%s%sinitialyield.dat", premia_data_dir, pa
    }

  return OK;
}
TYPEMOD HullWhite2d;
MAKEMOD(HullWhite2d);
```