

[Help](#)

```
#include "hes4over2.h"
#include "chk.h"
#include "error_msg.h"
#include "model.h"

extern char *path_sep;

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

    if (model->init == 0)
    {
        model->init = 1;
        model->nvar = 0;
        pt->T.Vname = "Current Date";
        pt->T.Vtype = DATE;
        pt->T.Val.V_DATE = 0.;
        pt->T.Viter = ALLOW;
        model->nvar++;

        pt->S0.Vname = "Spot";
        pt->S0.Vtype = PDOUBLE;
        pt->S0.Val.V_PDOUBLE = 100.;
        pt->S0.Viter = ALLOW;
        model->nvar++;

        pt->Divid.Vname = "Annual Dividend Rate";
        pt->Divid.Vtype = DOUBLE;
        pt->Divid.Val.V_DOUBLE = 0.;
        pt->Divid.Viter = ALLOW;
        model->nvar++;

        pt->R.Vname = "Annual Interest Rate";
        pt->R.Vtype = DOUBLE;
        pt->R.Val.V_DOUBLE = 10.;
        pt->R.Viter = ALLOW;
        model->nvar++;
    }
}
```

```
pt->a.Vname = "a";
pt->a.Vtype = DOUBLE;
pt->a.Val.V_DOUBLE = 0.5;
pt->a.Viter = ALLOW;
model->nvar++;

pt->b.Vname = "b";
pt->b.Vtype = DOUBLE;
pt->b.Val.V_DOUBLE = 0.005;
pt->b.Viter = ALLOW;
model->nvar++;

pt->Sigma0.Vname = "Current Variance";
pt->Sigma0.Vtype = DOUBLE;
pt->Sigma0.Val.V_DOUBLE = 0.01;
pt->Sigma0.Viter = ALLOW;
model->nvar++;

pt->MeanReversion.Vname = "Mean Reversion";
pt->MeanReversion.Vtype = DOUBLE;
pt->MeanReversion.Val.V_DOUBLE = 2.;
pt->MeanReversion.Viter = ALLOW;
model->nvar++;

pt->LongRunVariance.Vname = "Long-Run Variance";
pt->LongRunVariance.Vtype = DOUBLE;
pt->LongRunVariance.Val.V_DOUBLE = 0.04;
pt->LongRunVariance.Viter = ALLOW;
model->nvar++;

pt->Sigma.Vname = "Volatility of Variance";
pt->Sigma.Vtype = DOUBLE;
pt->Sigma.Val.V_DOUBLE = 0.3;
pt->Sigma.Viter = ALLOW;
model->nvar++;

pt->Rho.Vname = "Rho";
pt->Rho.Vtype = DOUBLE;
pt->Rho.Val.V_DOUBLE = -0.5;
```

```
    pt->Rho.Viter = ALLOW;
    model->nvar++;

    model->HelpFilenameHint = "HES4OVER2";

}

return OK;
}

TYPEMOD Hes4over2;

MAKEMOD(Hes4over2);
```