

[Help](#)

```
#include "inflation_lmm_heston1d.h"
#include "chk.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 = 0.0;
        pt->T.Viter = ALLOW;
        model->nvar++;

        pt->I0.Vname = "Flat Initial Libor Forward CPI";
        pt->I0.Vtype = PDOUBLE;
        pt->I0.Val.V_PDOUBLE = 0.08;
        pt->I0.Viter = ALLOW;
        model->nvar++;

        pt->SigmaI.Vname = "Volatility Libor Forward CPI";
        pt->SigmaI.Vtype = PDOUBLE;
        pt->SigmaI.Val.V_PDOUBLE = 0.01;
        pt->SigmaI.Viter = ALLOW;
        model->nvar++;

        pt->F0.Vname = "Flat Initial Libor Nominal Rates";
        pt->F0.Vtype = PDOUBLE;
        pt->F0.Val.V_PDOUBLE = 0.04;
        pt->F0.Viter = ALLOW;
        model->nvar++;
```

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pt->SigmaF.Vname = "Volatility Libor Nominal Rates";
pt->SigmaF.Vtype = PDOUBLE;
pt->SigmaF.Val.V_PDOUBLE = 0.75;
pt->SigmaF.Viter = ALLOW;
model->nvar++;

pt->Sigma0.Vname = "Current Variance";
pt->Sigma0.Vtype = DOUBLE;
pt->Sigma0.Val.V_DOUBLE = 0.7;
pt->Sigma0.Viter = ALLOW;
model->nvar++;

pt->SpeedMeanReversion.Vname = "Speed of Mean Reversion";
pt->SpeedMeanReversion.Vtype = DOUBLE;
pt->SpeedMeanReversion.Val.V_DOUBLE = 0.2;
pt->SpeedMeanReversion.Viter = ALLOW;
model->nvar++;

pt->LongRunVariance.Vname = "Long-Run Variance";
pt->LongRunVariance.Vtype = DOUBLE;
pt->LongRunVariance.Val.V_DOUBLE = 1.4;
pt->LongRunVariance.Viter = ALLOW;
model->nvar++;

pt->Sigma2.Vname = "Volatility of Volatility";
pt->Sigma2.Vtype = DOUBLE;
pt->Sigma2.Val.V_DOUBLE = 0.001;
pt->Sigma2.Viter = ALLOW;
model->nvar++;

pt->RhoFI.Vname = "RhoFI";
pt->RhoFI.Vtype = DOUBLE;
pt->RhoFI.Val.V_DOUBLE = 0.0;
pt->RhoFI.Viter = ALLOW;
model->nvar++;

pt->RhoFV.Vname = "RhoFV";
pt->RhoFV.Vtype = DOUBLE;
pt->RhoFV.Val.V_DOUBLE = 0.0;
pt->RhoFV.Viter = ALLOW;
```

```
model->nvar++;

pt->RhoIV.Vname = "RhoIV";
pt->RhoIV.Vtype = DOUBLE;
pt->RhoIV.Val.V_DOUBLE = 0.4;
pt->RhoIV.Viter = ALLOW;
model->nvar++;

pt->RhoI.Vname = "RhoI";
pt->RhoI.Vtype = DOUBLE;
pt->RhoI.Val.V_DOUBLE = 0.8;
pt->RhoI.Viter = ALLOW;
model->nvar++;

}
return OK;
}
TYPEMOD INFLATION_LMM_HESTON1d;
MAKEMOD(INFLATION_LMM_HESTON1d);
```