

[Help](#)

```
#include "garch1d.h"
#include "chk.h"
#include "error_msg.h"
#include "model.h"
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->R.Vname = "Annual Interest Rate";
        pt->R.Vtype = DOUBLE;
        pt->R.Val.V_DOUBLE = 10.;
        pt->R.Viter = ALLOW;
        model->nvar++;

        pt->alpha0.Vname = "alpha0";
        pt->alpha0.Vtype = DOUBLE;
        pt->alpha0.Val.V_DOUBLE = 0.00001;
        pt->alpha0.Viter = ALLOW;
        model->nvar++;

        pt->alpha1.Vname = "alpha1";
        pt->alpha1.Vtype = DOUBLE;
```

```
    pt->alpha1.Val.V_DOUBLE = 0.2;
    pt->alpha1.Viter = ALLOW;
    model->nvar++;

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

    pt->beta1.Vname = "beta1";
    pt->beta1.Vtype = DOUBLE;
    pt->beta1.Val.V_DOUBLE = 0.7;
    pt->beta1.Viter = ALLOW;
    model->nvar++;

}

return OK;
}

TYPEMOD garch1d;
MAKEMOD(garch1d);
```