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```
#include "bs1d_default.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->S0.Vname = "Spot";
        pt->S0.Vtype = PDOUBLE;
        pt->S0.Val.V_PDOUBLE = 100.;
        pt->S0.Viter = ALLOW;
        model->nvar++;

        pt->Interest.Vname = "Interest Rate";
        pt->Interest.Vtype = PDOUBLE;
        pt->Interest.Val.V_PDOUBLE = 0.05;
        pt->Interest.Viter = ALLOW;
        model->nvar++;

        pt->Sigma.Vname = "Volatility";
        pt->Sigma.Vtype = PDOUBLE;
        pt->Sigma.Val.V_PDOUBLE = 0.2;
        pt->Sigma.Viter = ALLOW;
        model->nvar++;

        pt->Intensity.Vname = "Default Intensity";
        pt->Intensity.Vtype = PDOUBLE;
        pt->Intensity.Val.V_PDOUBLE = 0.03;
        pt->Intensity.Viter = ALLOW;
        model->nvar++;

        pt->Recovery.Vname = "Recovery Rate";
```

```
    pt->Recovery.Vtype = PDOUBLE;
    pt->Recovery.Val.V_PDOUBLE = 0.4;
    pt->Recovery.Viter = ALLOW;
    model->nvar++;

    pt->Counterparty.Vname = "Counterparty Provision";
    pt->Counterparty.Vtype = ENUM;
    pt->Counterparty.Val.V_ENUM.members = &PremiaEnumBool;
    pt->Counterparty.Val.V_ENUM.value = 0;
    pt->Counterparty.Viter = FORBID;
    model->nvar++;
}

return OK;
}

TYPEMOD bs1d_default;
MAKEMOD(bs1d_default);
```