

[Help](#)

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#include "
href../../mod/dynamic/dynamic_stdndc/dynamic_stdndc_h_src.pdfstdndc.h"
#include "
href../../common/error_msg_h_src.pdferror_msg.h"
#include "premia_obj.h"

static TYPEOPT CDO_HEDGING =
{
    {"Number of Companies", PINT, {0}, FORBID, UNSETABLE},
    {"Maturity", DATE, {0}, ALLOW, SETABLE},
    {"Homogeneous Nominals", ENUM, {0}, IRRELEVANT, UNSETABLE},
    {"Tranches", PNLVECT, {0}, FORBID, SETABLE},
    {"Number of coupon payments per year", INT, {0}, ALLOW, SETABLE},
    {"Current date", DATE, {0}, FORBID, SETABLE},
    {"Number of defaults at current date", INT, {0}, FORBID, SETABLE}
};

static int OPT(Init)(Option *opt, Model *mod)
{
    TYPEOPT *pt = (TYPEOPT *) (opt->TypeOpt);
    VAR *ptMod = (VAR *) (mod->TypeModel);

    /* get the size from the model */
    mod->Init(mod);
    pt->Ncomp.Val.V_PINT = ptMod[0].Val.V_PINT;

    if (opt->init == 0)
    {
        opt->init = 1;
        opt->nvar = 7;
        opt->nvar_setable = 5;

        pt->maturity.Val.V_DATE = 5.0;
        pt->t_nominal.Val.V_ENUM.value = 1;
        pt->t_nominal.Val.V_ENUM.members = &PremiaEnumNull;
        pt->tranch.Val.V_PNLVECT = NULL;
        pt->NbPayment.Val.V_INT = 4;
        pt->date.Val.V_DATE = 1.;
        pt->n_defaults.Val.V_INT = 5;
    }
}
```

```

    }
    /* tranches */
    if ((pt->tranch).Val.V_PNLVECT == NULL)
    {
        double tranches[5] = {0, 0.03, 0.06, 0.1, 1};
        if ((pt->tranch.Val.V_PNLVECT =
            pnl_vect_create_from_ptr(5, tranches)) == NULL)
            return WRONG;
    }
    return OK;
}

MAKEOPT(CDO_HEDGING);

```