

[Help](#)

```
#include "bharchiarella1d_std.h"

int MOD_OPT(ChkMix)(Option *Opt,Model *Mod)
{
    TYPEOPT* ptOpt=( TYPEOPT*)(Opt->TypeOpt);
    TYPEMOD* ptMod=( TYPEMOD*)(Mod->TypeModel);
    int status=OK;

    if ((strcmp(Opt->Name,"ZeroCouponCallBondEuro")==0) || (
        strcmp(Opt->Name,"ZeroCouponPutBondEuro")==0) || (strcmp(Opt->Name,"
ZeroCouponCallBondAmer")==0) || (strcmp(Opt->Name,"
ZeroCouponPutBondAmer")==0))
    {
        if ((ptOpt->OMaturity.Val.V_DATE)<=(ptMod->T.Val.V_DATE))
        {
            Fprintf(TOSCREENANDFILE,"Current date greater than
maturity!\n");
            status+=1;
        }
        if ((ptOpt->BMaturity.Val.V_DATE)<=(ptOpt->OMaturity.
Val.V_DATE))
        {
            Fprintf(TOSCREENANDFILE,"Option maturity greater than
Bond maturity!\n");
            status+=1;
        }
    }
    if ((strcmp(Opt->Name,"ZCBond")==0))
    {
        if ((ptOpt->BMaturity.Val.V_DATE)<=(ptMod->T.Val.V_DATE))
        {
            Fprintf(TOSCREENANDFILE,"Current date greater than
maturity!\n");
            status+=1;
        }
    }
    if (strcmp(Opt->Name,"CouponBearing")==0)
    {
```

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        if ((ptOpt->FirstResetDate.Val.V_DATE)<=(ptMod->T.Val
.V_DATE))
    {
        Fprintf(TOSCREENANDFILE,"Current date greater than fir
st coupon date!\n");
        status+=1;
    }
}
if ((strcmp(Opt->Name,"PayerSwaption")==0)|| (strcmp(Opt->Name,"
ReceiverSwaption")==0)|| (strcmp(Opt->Name,"
PayerBermudanSwaption")==0)|| (strcmp(Opt->Name,"
ReceiverBermudanSwaption")==0))
    if((ptOpt->BMaturity.Val.V_DATE)<=(ptOpt->OMaturity.
Val.V_DATE))
    {
        Fprintf(TOSCREENANDFILE,"Option maturity greater than
Bond maturity!\n");
        status+=1;
    }
}

if ((strcmp(Opt->Name,"Floor")==0)|| (strcmp(Opt->Name,"      Cap")==0))
{
    if ((ptOpt->FirstResetDate.Val.V_DATE)<=(ptMod->T.Val
.V_DATE))
    {
        Fprintf(TOSCREENANDFILE,"Current date greater than fir
st coupon date!\n");
        status+=1;
    }
    if ((ptOpt->FirstResetDate.Val.V_DATE)>=(ptOpt->BMatu
rity.Val.V_DATE))
    {
        Fprintf(TOSCREENANDFILE,"First reset date greater than
contract maturity!\n");
        status+=1;
    }
}

return status;

```

```
}  
extern PricingMethod MET(CF_ZCBond);  
extern PricingMethod MET(MC_BC_TEICHMANNBAYER);  
extern PricingMethod MET(FD_ADI_ZCBond);  
extern PricingMethod MET(FD_IMPLICIT_ZCBond);  
extern PricingMethod MET(FD_ADI_ZBO);  
extern PricingMethod MET(FD_IMPLICIT_ZBO);
```

```
PricingMethod* MOD_OPT(methods)[]={  
    &MET(CF_ZCBond),  
    &MET(MC_BC_TEICHMANNBAYER),  
    &MET(FD_ADI_ZCBond),  
    &MET(FD_IMPLICIT_ZCBond),  
    &MET(FD_ADI_ZBO),  
    &MET(FD_IMPLICIT_ZBO),  
    NULL  
};  
DynamicTest* MOD_OPT(tests)[]={  
    NULL  
};
```

```
Pricing MOD_OPT(pricing)={  
    ID_MOD_OPT,  
    MOD_OPT(methods),  
    MOD_OPT(tests),  
    MOD_OPT(ChkMix)  
};
```

References