

[Help](#)

```
#include "vasicek1d_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, "
    {
        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, "PayerSwaption") == 0) || (strcmp(Opt->Name, "ReceiverS
    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))
{
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        if ((ptOpt->FirstResetDate.Val.V_DATE) <= (ptMod->T.Val.V_DATE))
        {
            Fprintf(TOSCREENANDFILE, "Current date greater than first coupon date!
            status += 1;
        }
        if ((ptOpt->FirstResetDate.Val.V_DATE) >= (ptOpt->BMaturity.Val.V_DATE))
        {
            Fprintf(TOSCREENANDFILE, "First reset date greater than contract matur
            status += 1;
        }
    }

    return status;
}

```

```

extern PricingMethod MET(CF_ZCBond);
extern PricingMethod MET(CF_ZCPutBondEuro);
extern PricingMethod MET(CF_ZCCallBondEuro);
extern PricingMethod MET(CF_Cap);
extern PricingMethod MET(CF_Floor);
extern PricingMethod MET(CF_PayerSwaption);
extern PricingMethod MET(CF_ReceiverSwaption);
extern PricingMethod MET(FD_ZCBond);
extern PricingMethod MET(FD_ZBO);
extern PricingMethod MET(FD_CAPFLOOR);
extern PricingMethod MET(FD_SWAPTION);
extern PricingMethod MET(FD_GaussZCBond);
extern PricingMethod MET(FD_GaussZBO);
extern PricingMethod MET(FD_GaussCAPFLOOR);
extern PricingMethod MET(FD_GaussSWAPTION);

```

```

PricingMethod *MOD_OPT(methods) [] =
{
    &MET(CF_ZCBond),
    &MET(CF_ZCPutBondEuro),
    &MET(CF_ZCCallBondEuro),
    &MET(CF_Cap),

```

```
&MET(CF_Floor),
&MET(CF_PayerSwaption),
&MET(CF_ReceiverSwaption),
&MET(FD_ZCBond),
&MET(FD_ZBO),
&MET(FD_CAPFLOOR),
&MET(FD_SWAPTION),
&MET(FD_GaussZCBond),
&MET(FD_GaussZBO),
&MET(FD_GaussCAPFLOOR),
&MET(FD_GaussSWAPTION),
NULL
};
DynamicTest *MOD_OPT(tests) [] =
{
    NULL
};
```

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