

[Help](#)

```

#include "pad.h"

static NumFunc_2 call=
{
    Call_StrikeSpot2, /*(Spot-Average)+*/
    {" ",END,0,FORBID}},
    CHK_call
};

static NumFunc_2 asian=
{
    Asian,
    {
        {"StartingDate",DATE,0,ALLOW},
        {"FinalDate",DATE,0,IRRELEVANT},
        {"Frequency",PDOUBLE,0,IRRELEVANT},
        {"InitialValue",PDOUBLE,100,IRRELEVANT},
        {"Average",PDOUBLE,100,ALLOW},
        {" ",END,0,FORBID}
    },
    /*The average At at time t is given by:
    A0+S0+Sh+S2h+...+Snh/n with:*/
    /*h=Frequency, nh=t-StartingDate */
    /*frequency doesn't matter for continuou
    s average*/
    CHK_call
};

static TYPEOPT AsianCallFloatingAmer=
{
    /*PayOff*/ {"Payoff",NUMFUNC_2,0,FORBID}
    ,
    /*MinOrElse*/ {"Average",PADE,AVERAGE,ALLOW},
    /*EuOrAm*/ {"Amer",BOOL,AMER,FORBID},
    /*PartOrTot*/ {"Total",BOOL,TOTAL,FORBID},
    /*ContOrDisc*/ {"Continuous",BOOL,CONT,FORBID},
    /*PathDep*/ {"PathDep",NUMFUNC_2,0,FORBID}
    },

```

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/*Maturity*/          {"Maturity",DATE,0,ALLOW}
};

static int OPT(Init)(Option *opt)
{
    TYPEOPT* pt=( TYPEOPT*)(opt->TypeOpt);
    static int first=1;

    if (first)
    {
        pt->PayOff.Val.V_NUMFUNC_2=&call;
        pt->PathDep.Val.V_NUMFUNC_2=&asian;

        (pt->MinOrElse).Val.V_PADE=AVERAGE;
        (pt->EuOrAm).Val.V_BOOL=AMER;
        (pt->PartOrTot).Val.V_BOOL=TOTAL;
        (pt->ContOrDisc).Val.V_BOOL=CONT;

        (pt->PathDep.Val.V_NUMFUNC_2)->Par[0].Val
.V_DATE=0.0;
        (pt->PathDep.Val.V_NUMFUNC_2)->Par[1].Val
.V_DATE=0.0;
        (pt->PathDep.Val.V_NUMFUNC_2)->Par[2].Val
.V_PDOUBLE=0.0;
        (pt->PathDep.Val.V_NUMFUNC_2)->Par[3].Val
.V_PDOUBLE=0.0;
        (pt->PathDep.Val.V_NUMFUNC_2)->Par[4].Val
.V_PDOUBLE=0.0;

        (pt->Maturity).Val.V_DATE=1.0;

        first=0;
    }

    return OK;
}

MAKEOPT(AsianCallFloatingAmer);

```

## References