stda

Premia 22

1 Insurance Derivatives

2 Code Implementation

```
#ifndef  _STDa_H
#define _STDa_H

#include  "optype.h"
#include  "var.h"
#include  "chk.h"
#include  "numfunc.h"
#include "option.h"

#define TYPEOPT STDa

typedef struct TYPEOPT
{
  VAR       PayOff;
  VAR       EuOrAm;
  VAR       Maturity;
  VAR       DeemedContribution;
  VAR       InitialAge;
  VAR       Premium;
  VAR       MinimumGuaranteed;
  VAR       NumberofMonitoringDates;
  VAR       Alpha;
  VAR       Alpha_m;
```

```
  VAR      MultiplieriCPPi;
  VAR      Ratchet;
  VAR      Gamma;
  VAR      Bonus;
  VAR      WithdrawalRate;
  VAR      SurrenderCharges;
  VAR      SurrenderTimes;
  VAR      MortalityData;
  VAR      MaximumWithdrawalRate;
  VAR      RateAccumulation;
  VAR      PremiumPercentuage;
  VAR      CompoundRollUpRate;
  VAR      ForceOfMortality;
  VAR      TermCertainAnnuitiyMaturity;
} TYPEOPT;

int OPT(Get)(int user, Planning *pt_plan, Option *opt, Model *mod);
int OPT(FGet)(char **InputFile, int user, Planning *pt_plan, Option *opt, Model
int OPT(Show)(int user, Planning *pt_plan, Option *opt, Model *mod);
int OPT(Check)(int user, Planning *pt_plan, Option *opt);

#endif
```