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```
#if defined(PremiaCurrentVersion) && PremiaCurrentVersion <
    (2007+2) //The "#else" part of the code will be freely av
    ailable after the (year of creation of this file + 2)
#else
```

```
#ifndef LMM_HEADER_H
#define LMM_HEADER_H
```

```
#include<math.h>
#include"stdio.h"
#include"stdlib.h"
#include "pnl/pnl_vector.h"
```

```
typedef double (*funcVol)(double t, double T,double sigma)
    ; /*// volatility function*/
```

```
typedef struct
{
    int numberOfFactors;
    double flat_sigma;
    funcVol *vol; /*// vol is an array of volatility
    functions */
}Volatility;
```

```
typedef struct
{
    int numberOfMaturities ;
    double tenor;
    PnlVect *maturity ;
    PnlVect *libor ;
}Libor;
```

```
typedef struct
{
    int numberOfMaturities ;
    int numberOfTrajectories;
    double tenor;
    double *maturity ;
```

```
double ***libor ;  
}HistLibor;
```

```
typedef struct  
{  
    int numberOfFactors ;  
    double *val ;  
  
}RandomGenerator;
```

```
typedef struct  
{  
    double swaptionMaturity;  
    double swapMaturity;  
    double price;  
    double strike;  
    double tenor;  
    int numberOfDates;  
  
}Swaption;
```

```
typedef struct  
{  
    double maturity;  
    double price;  
    double strike;  
  
}Caplet;
```

```
typedef struct  
{  
    int numberOfMaturities ;  
    double tenor;  
    double * value ;  
  
}ZeroBond;
```

```
#endif
```

```
#endif //PremiaCurrentVersion
```

References