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```
#ifndef _LEVY_CALIBRATION_H_
#define _LEVY_CALIBRATION_H_
#include <stdio.h>
#include <stdlib.h>

#include "pnl/pnl_matrix.h"
#include "pnl/pnl_vector.h"
#include "pnl/pnl_lbgssolver.h"

#include "finance_tool_box.h"

extern double TT_interest_rate(double t); //0.03
extern double TT_volatility(double t); //0.15*0.15;}

typedef struct _Calibration_Data Calibration_Data;
struct _Calibration_Data
{
    List_Option_Eqd *list_input;
    List_Option_Eqd *list_model;
    int type_of_process;
};

extern Calibration_Data *calibration_data_create(List_
    Option_Eqd *list_input_, double r, double divid, int type_of_
    model_);
extern void calibration_data_free(Calibration_Data **data);
extern double calibration_data_QuadraticError(const Calibr
    ation_Data *Data);

extern double QuadraticError_ForLevyProcess(const PnlVect *
    GenerationParams, void *data);
extern void Constraints_ForLevyProcess(PnlVect *res, const
    PnlVect *x, void *data);

extern double QuadraticError_ForLevyDiffusion(const PnlVec
    t *GenerationParams, void *data);
extern void Constraints_ForLevyDiffusion(PnlVect *res, cons
    t PnlVect *x, void *data);
```

```
#endif // LEVY_CALIBRATION_H
```

## References