

Data are aggregated between Initial date: **2000-06-01** and Last date: **2017-11-16**  
**00:00:00**

# Finance

©Frederic Kerdraon

January 1, 2018

## Contents

### 1 Introduction

### 2 Management summary

#### 2.1 PnL Projections

##### 2.1.1 Latex Graph of the scenarios

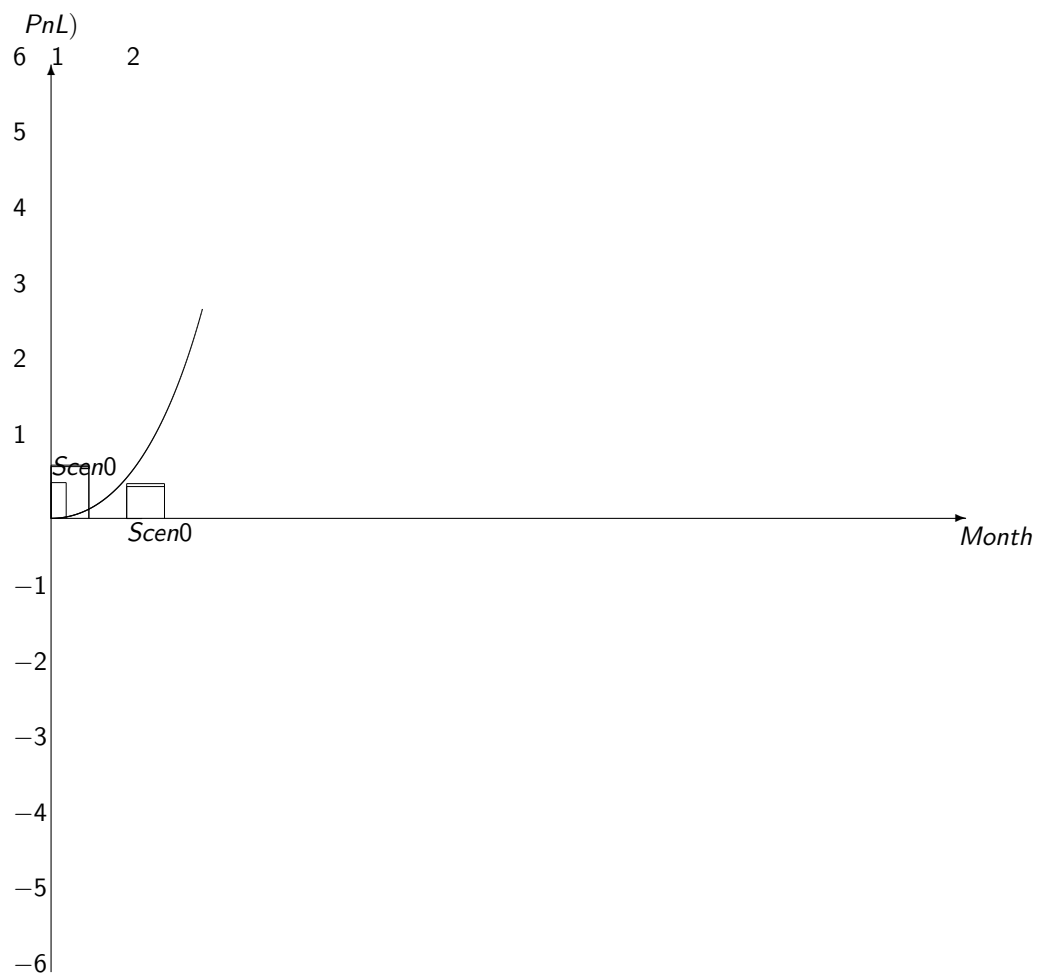
Initial parameters for the simulations.

We apply the scenarios below to see what we get after a few iterations

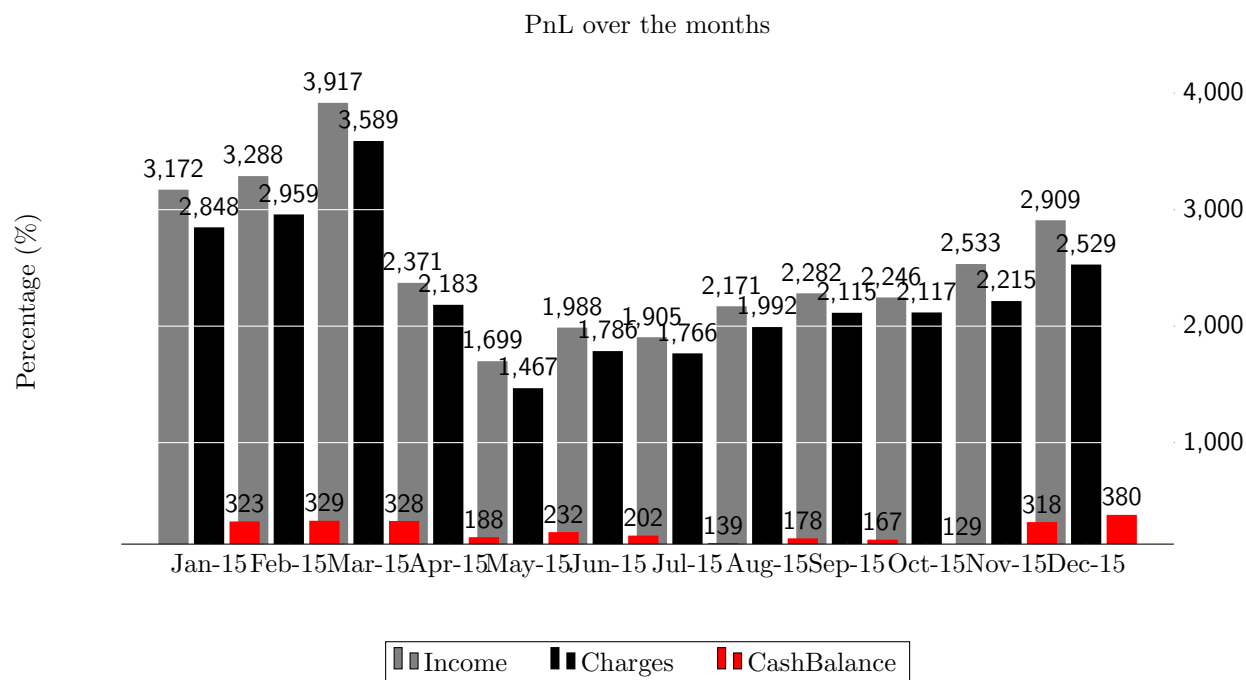
```
my @Scen = (231,529*.4,755*.5,231+529*.4,1000,700,800,950,750);
```

- The first simulation apply a reduction of the Toxics by 231 euros each month
- The second scenario apply a reduction of the debt by 40 percent of the 529
- The third one divide the amount of cash spent by 50 percent
- The fourth one cumulate the reduction of the toxics by 231 euros with the amount of cash spent reduced by 50 percent
- The fifth one is a reduction of 1000 euros each month
- The sixth one is a reduction of 700 euros each month
- The seventh one is a reduction of 800 euros each month
- The eighth one is a reduction of 950 euros each month
- The ninth one is a reduction of 750 euros each month

On the graph we can notice that all the scenarios are positive, as they were built to show how to maximize profit just by managing the charge, and especially useless charges.

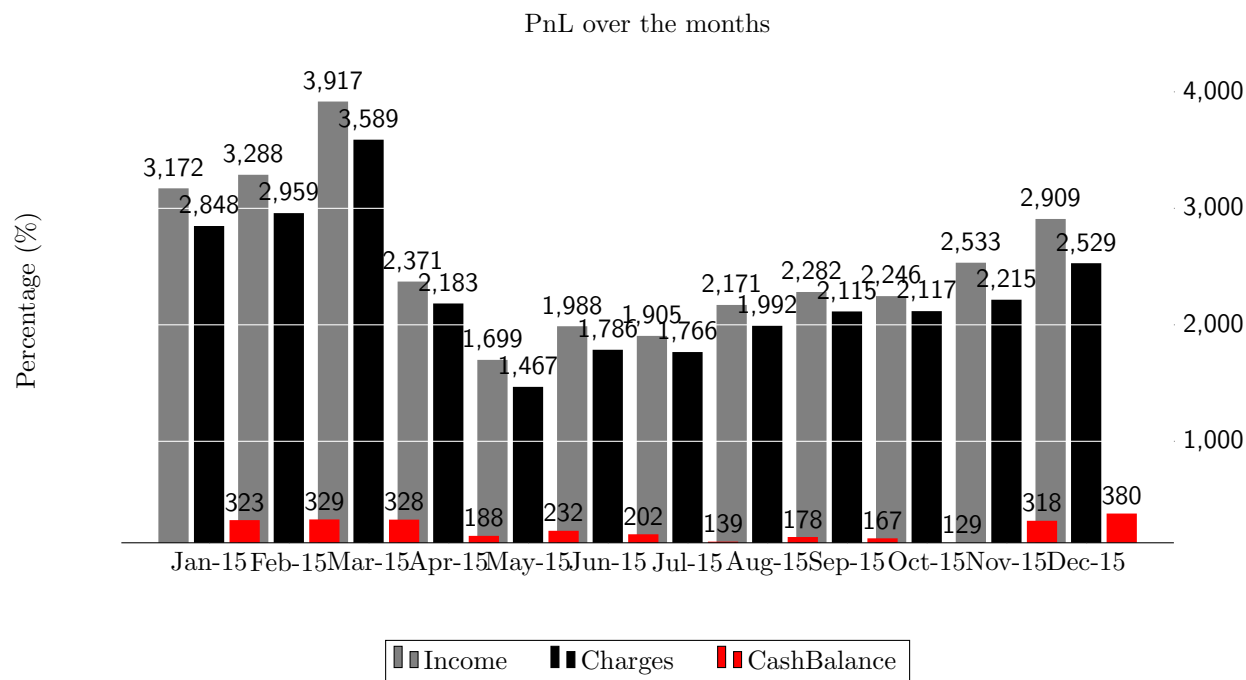


## 2.1.2 Barplot

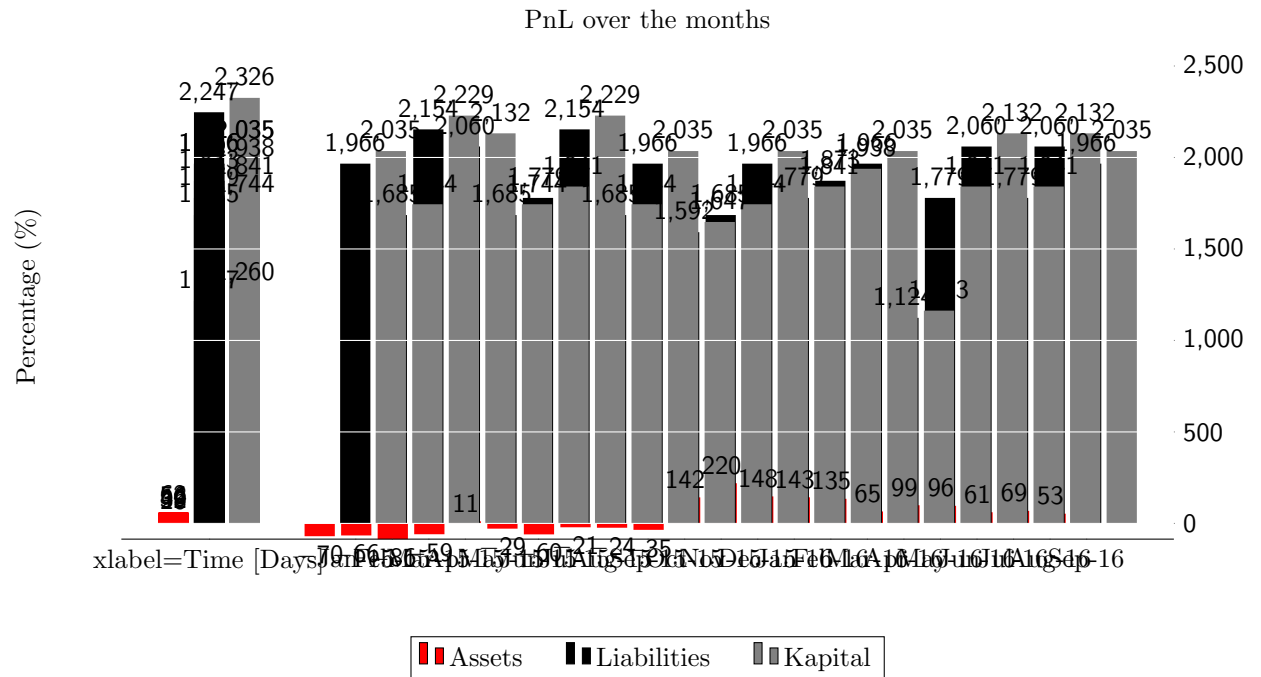


BarPlotPnl

## 2.1.3 PnL

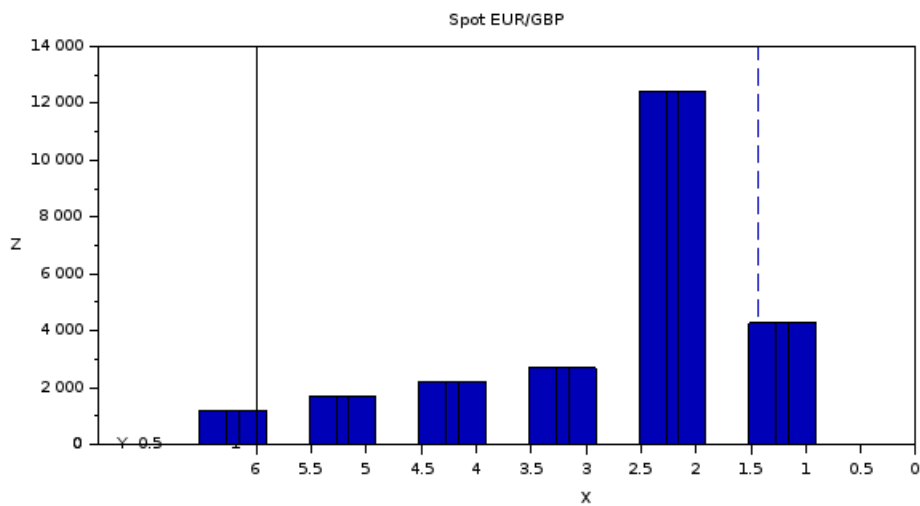


## 2.1.4 Kapital



## 2.1.5 Plot of an example

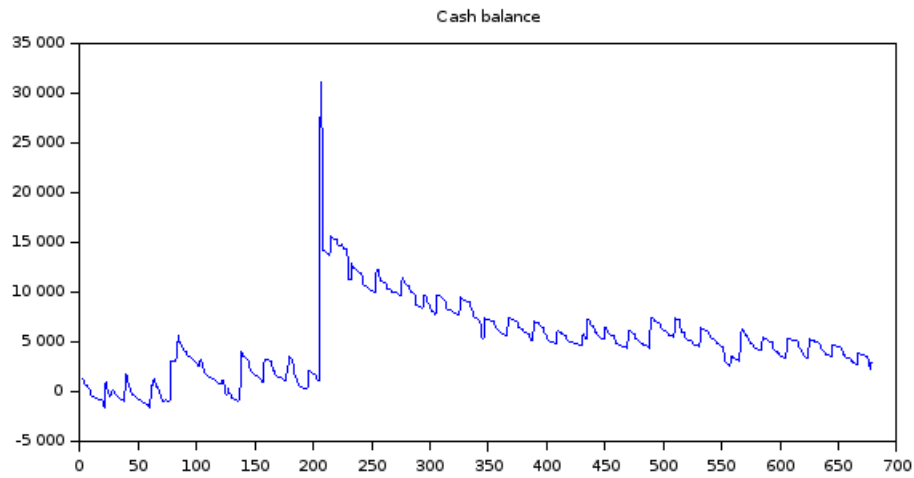
## 2.1.6 Cashflows over a limit



The limit is defined by the variable \$MAXCASHFLOW

This where science enter the game as here can call scilab and there is no limit at what we could calculate... fascinating! How do we populate Scilab with Negative numbers where there are Debits and Positive numbers for the Credit

### 2.1.7 Cash balance



### 2.1.8 Pnl over time

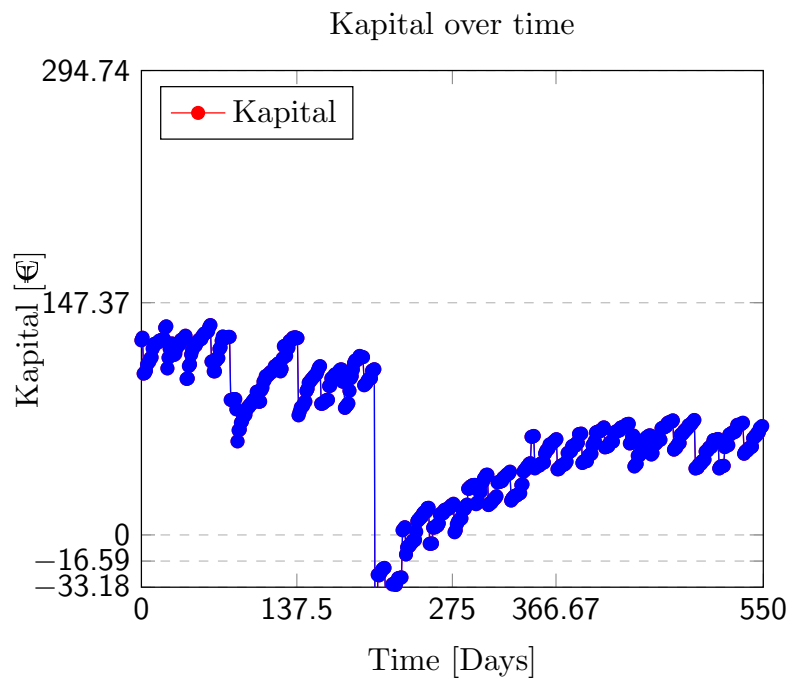
The scenarios given in the table are only examples, the real scenarios are provided in the graph below

Scenarios					
PnL; CumPnL; Tox; Debt(40PnL	CumPnL	Tox	Debt(40%)	Cash(50%)	Tox-Debt(40%)
472;472;703;684;850;915 472	472	703	684	850	915
-475;-2;459;420;752;882 -475	-2	459	420	752	882

All the figures need to be checked carefully by someone who knows what it's doing. We print only the last 10 PnL meaasures (Need to add a variable for that limit)

## 2.2 History and extrapolations

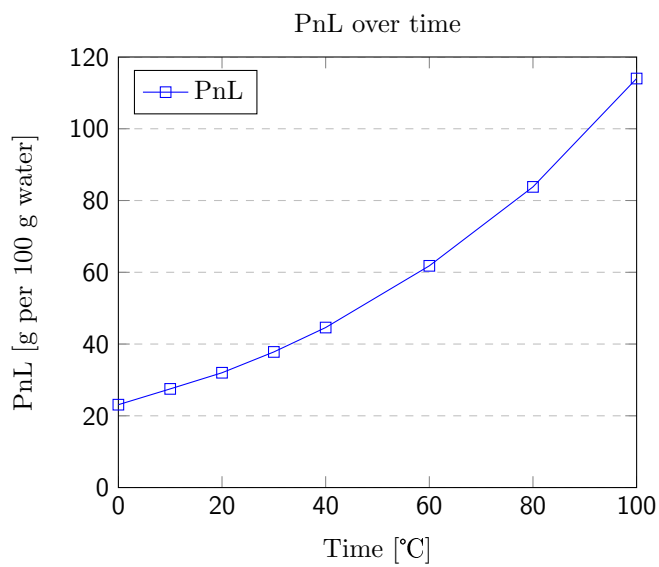
### 2.2.1 Kapital curve



This is the kapitalCurve

from perl

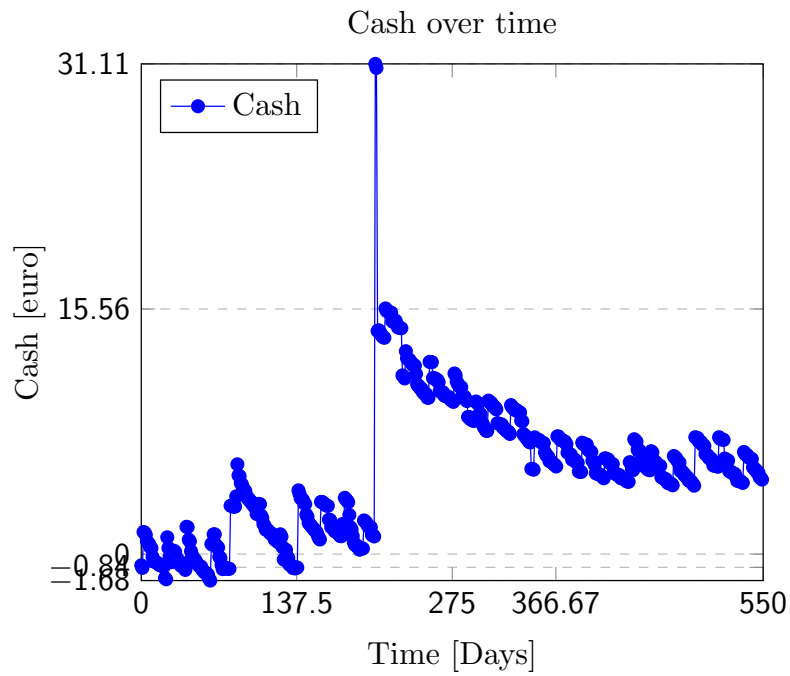
### 2.2.2 PnL curve



This is the pnlCurve from perl

### 2.2.3 Cash curve

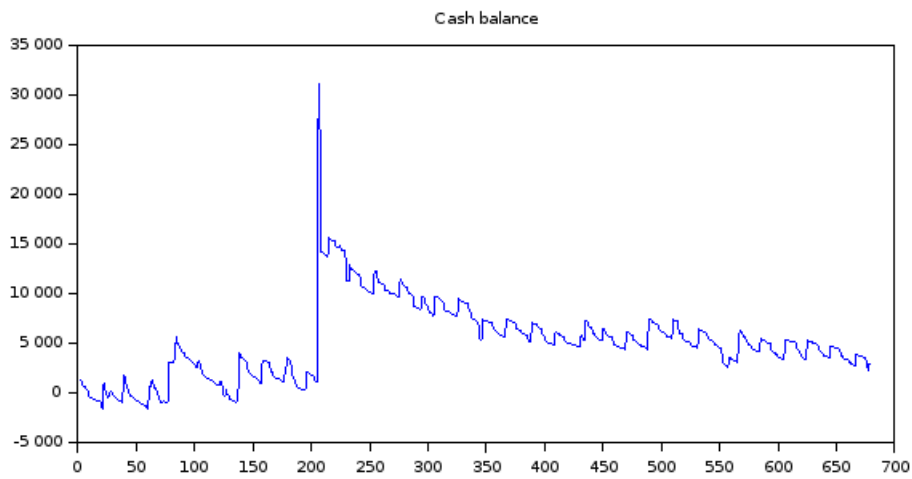
Funny cashflow/kapital superior to percent



This is the cashCurve

from perl

### 2.2.4 Cash curve from Scilab man!



This

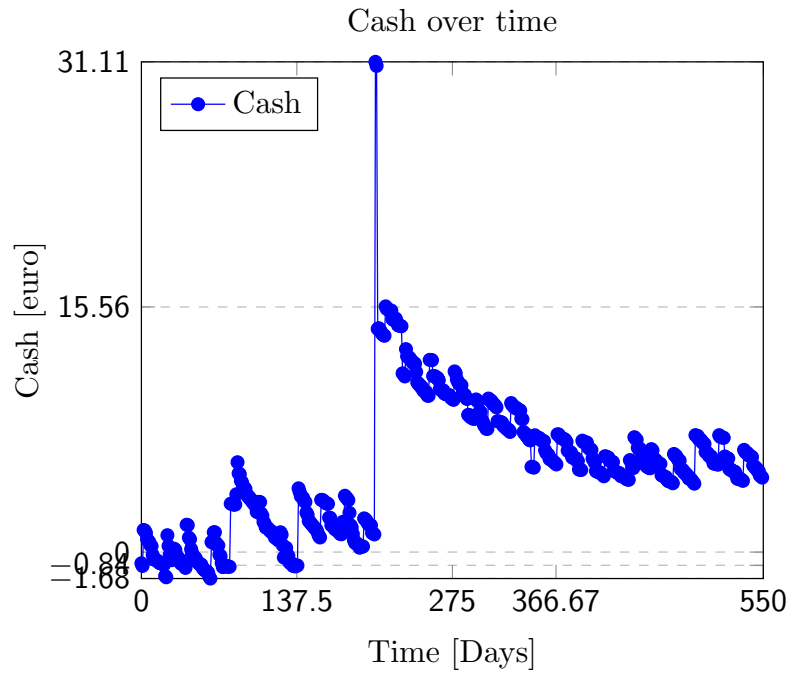
is the cashBalance from Scilab



### 3 Cash Balance Management

#### 3.1 Monthly drift

##### 3.1.1 Monthly drift table



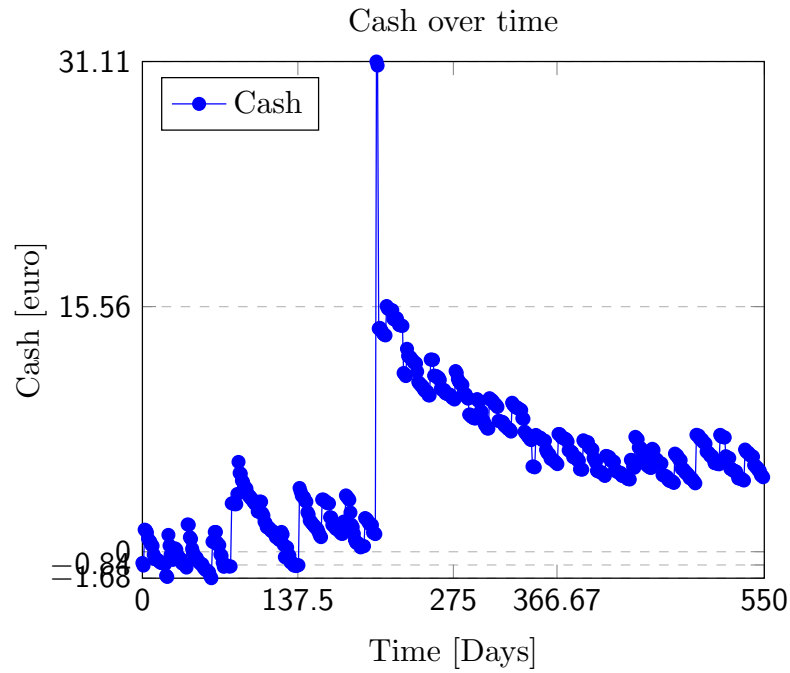
##### 3.1.2 Table of the PnL

Cashflows				
Date	Income	Charges	PnL	NumDays
2021-01-13	96890	92162	4728	7531
2017-04-20	96890	92162	4728	6167
2017-04-19	96890	92067	4823	6166
2017-04-18	96890	92035	4855	6165
2017-04-14	96890	91753	5137	6161
2017-04-13	96890	91746	5144	6160
2017-04-12	96890	91576	5314	6159
2017-04-11	96890	91556	5334	6158
2017-04-10	96890	91434	5456	6157
2017-04-07	96890	91388	5502	6154
2017-04-06	96890	90859	6031	6153
2017-04-05	96890	90812	6078	6152
2017-04-04	96890	90785	6105	6151
2017-04-03	96890	90749	6141	6150
2017-03-31	96890	90612	6278	6147
...	...	...	...	...

...				
Total				

To be able to have data for the drift, you need to build a C++ insert like for the kapital go through the dates in the cashflows, and calculate a drift based on this (modulo the salary)

### 3.1.3 Graph

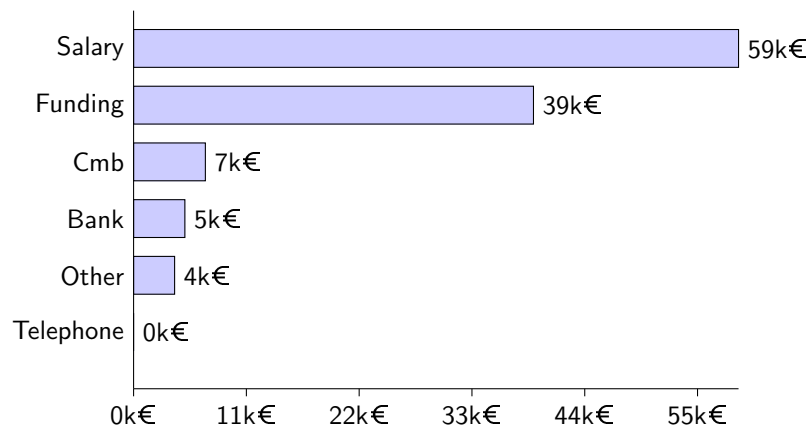


## 3.2 Incomes

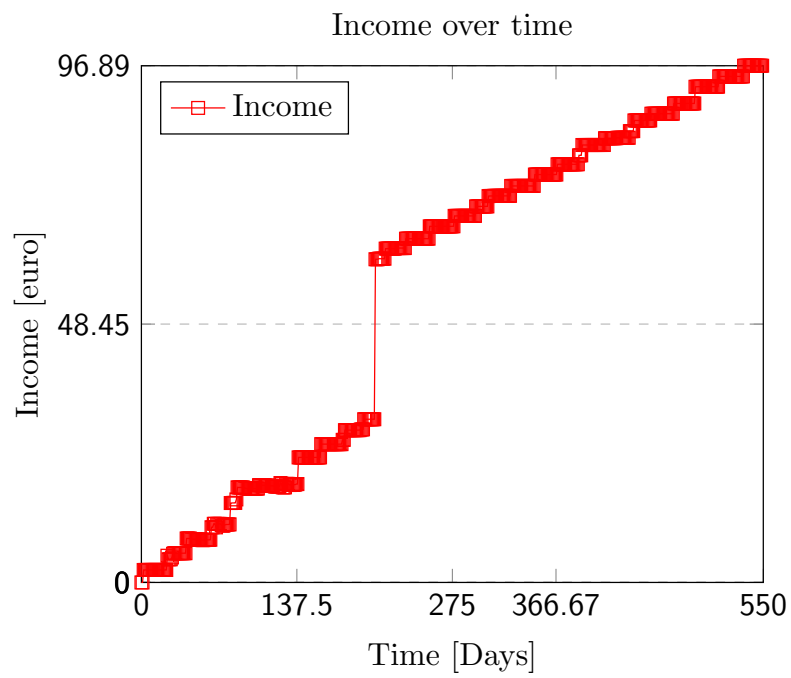
### 3.2.1 Income table

Cashflows			
Category	Debit	Credit	PnL
Salary	0	59644	59644
Funding	0	39000	39000
Cmb	0	7287	7287
Bank	0	5056	5056
Other	0	4342	4342
Telephone	0	128	128
...	...	...	
Total	107060	109924	2864

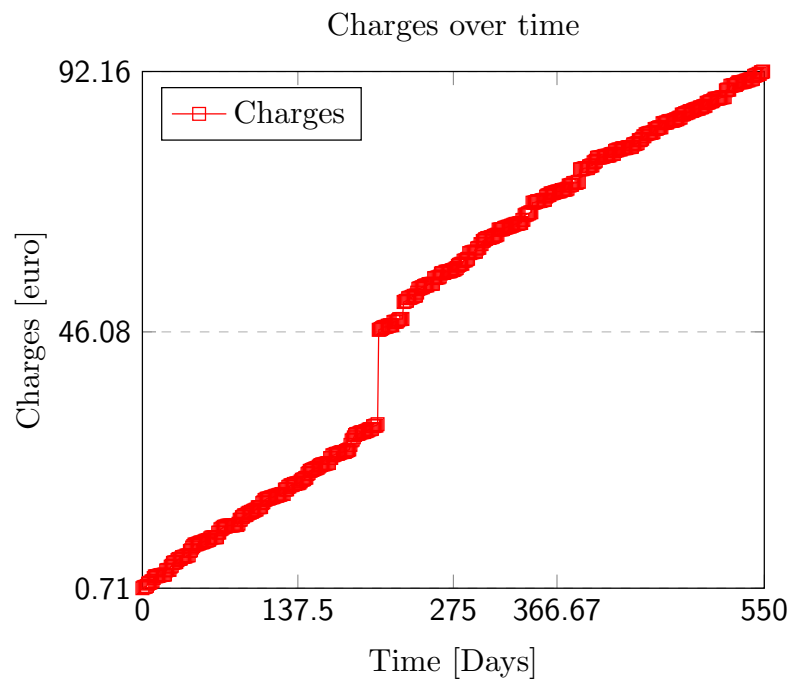
### 3.2.2 Income graph



### 3.2.3 Income Chart



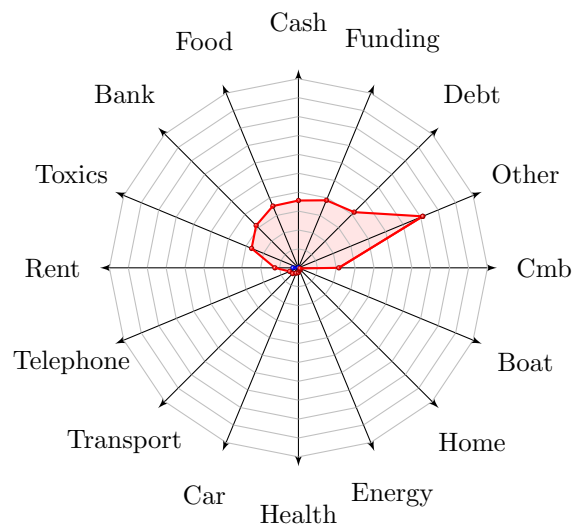
### 3.3 Charges



#### 3.3.1 Charges plot

Removed to preserve my eyes from the colors....!!!!

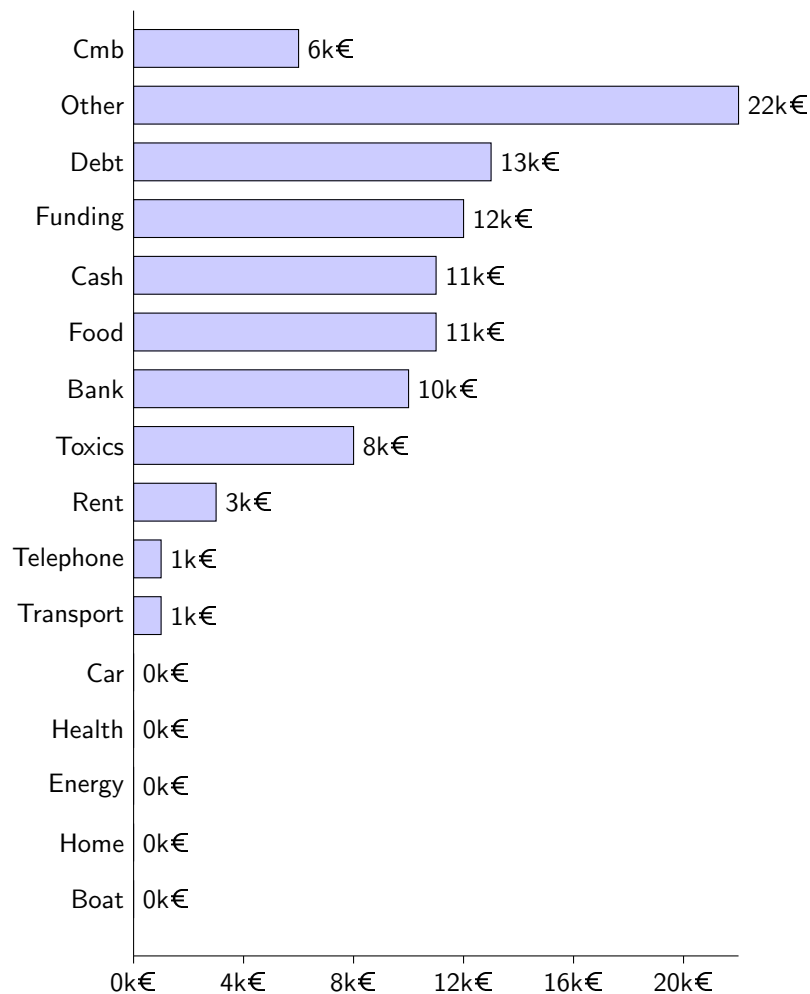
#### 3.3.2 Charges kiviati



### 3.3.3 Table

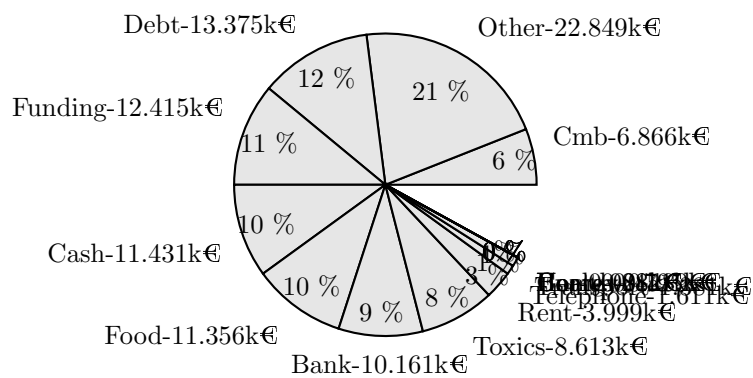
Cashflows			
Category	Debit	Credit	PnL
Cmb	6866	-963	-7829
Other	22849	0	-22849
Debt	13375	0	-13375
Funding	12415	0	-12415
Cash	11431	0	-11431
Food	11356	0	-11356
Bank	10161	0	-10161
Toxics	8613	0	-8613
Rent	3999	0	-3999
Telephone	1611	0	-1611
Transport	1381	0	-1381
Car	988	0	-988
Health	795	0	-795
Energy	489	0	-489
Home	451	0	-451
Boat	280	0	-280
...	...	...	...
Total	107060	109924	2864

### 3.3.4 Graph



### 3.3.5 Chart

### 3.3.6 Cheese



## 4 Asset Liability Management

### 4.1 Kapital

#### 4.1.1 Table

History of the Kapital is available in the database (select \* from kapital)

#### 4.1.2 Graph

A graph of the kapital and not income and charges cumulated should be easy to build. Say a readKapital which would select the cash balance + all the other stuff like assets - liabilities  
Better do it with Latex than with the C++

#### 4.1.3 History

Historical graph of the kapital, liab and assets, yearly ALM management

#### 4.1.4 Definitions

Vp: value weight (basically the value of the asset against the total value - to be replaced by InitPrice)

Rp: return weight (the return compared to the total returns)

Cp: cost weight (the maintenance cost compared to the total maintenance)

Vd: historical deprecation of value (the Value compared to the InitPrice)

R/V: monthly rentability (the return minus the maintenance)

#### 4.1.5 Ratios

$Vp = \text{value} / \text{Totalvalue}$

$Rp = \text{return} / \text{Totalreturn}$

$Cp = \text{cost} / \text{Totalmaintenance}$

$Vd = \text{value} / \text{Initprice}$

$R/V = \text{return} / \text{Value}$

#### 4.1.6 Formulas

$\lim_{x \rightarrow \infty} \exp(-x) = 0$

### 4.2 Assets

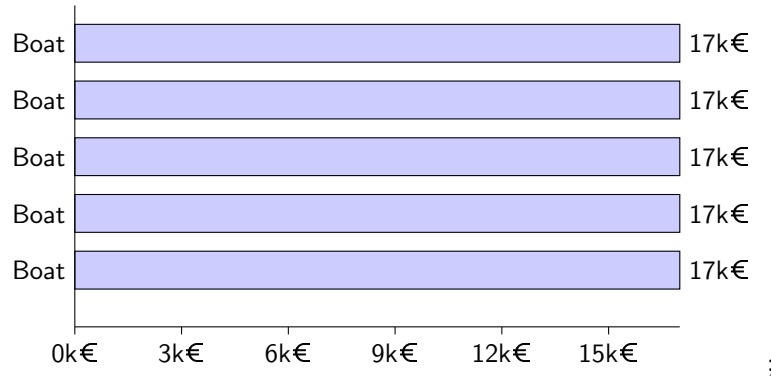
#### 4.2.1 Data

The top 5 assets are listed sorted by value, but the totals are given for all the assets as of today

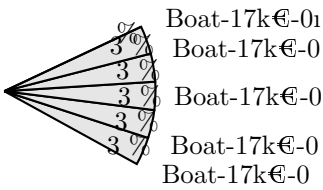
Assets											
Type	Name	Maturity	Value	Return	Cost	InitPrice	vp	rp	mp	dv	PnL(R/V)
Boat	Acquisition	2013-01-07	17000	50	400	30000	3	0	0	56	0

Boat	Acquisition	2013-01-07	17000	50	400	30000	3	0	0	56	0
Boat	Acquisition	2013-01-07	17000	50	400	30000	3	0	0	56	0
Boat	Acquisition	2013-01-07	17000	50	400	30000	3	0	0	56	0
Boat	Acquisition	2013-01-07	17000	50	400	30000	3	0	0	56	0
...	...	...	...	...	...	...	...	...	...	...	...
	Total assets	1862080	468160	159820	205340						-45520

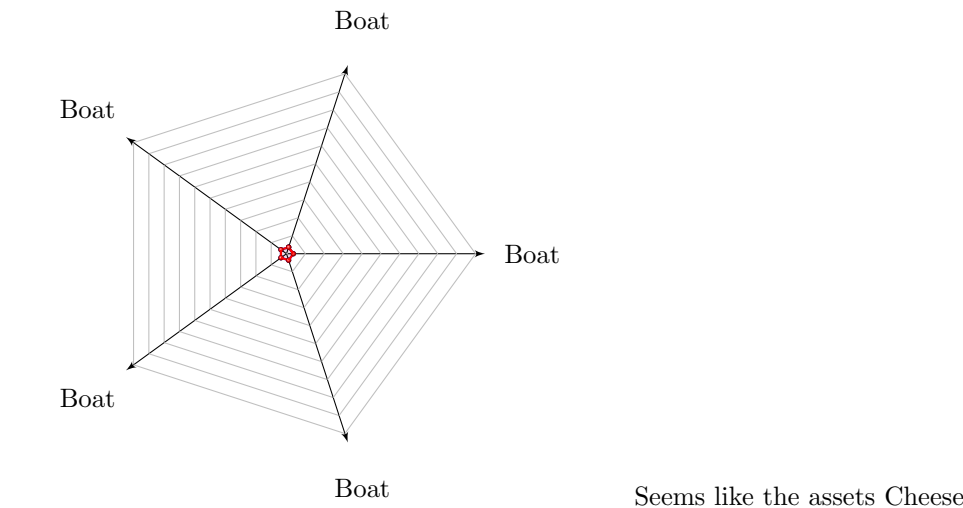
4.2.2 Graph



4.2.3 Cheese



4.2.4 Kiviat





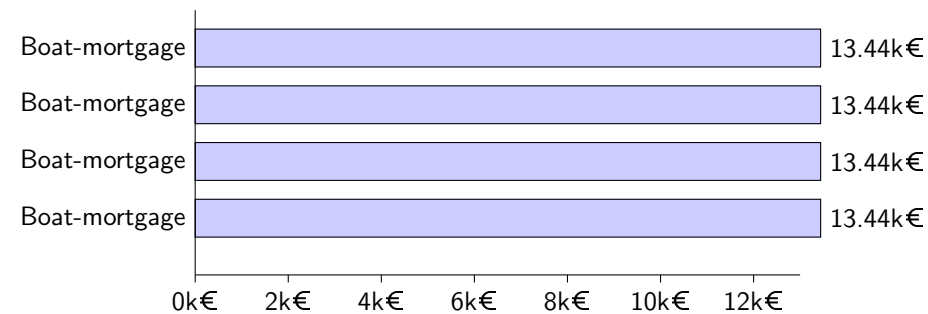
### 4.3 Liabilities

The top 4 liabilities are listed but the totals are given for all the liabilities

#### 4.3.1 Table

Liabilities											
Type	Name	InitPrice	Value	Return	Cost	Maturity	vp	rp	mp	dv	PnL
Boat-mortgage	mortgage	30000	13440	0	1	2013-01-07	2	0	1	44	0
Boat-mortgage	mortgage	30000	13440	0	1	2013-01-07	2	0	1	44	0
Boat-mortgage	mortgage	30000	13440	0	1	2013-01-07	2	0	1	44	0
Boat-mortgage	mortgage	30000	13440	0	1	2013-01-07	2	0	1	44	0
...	...	...	...	...	...	...	...	...	...	...	...
	Total	910000	484540	0	80						-80

#### 4.3.2 Graph



#### 4.3.3 Chart

#### 4.3.4 Cheese



## 5 Cashflows

All cashflows from history are being used here

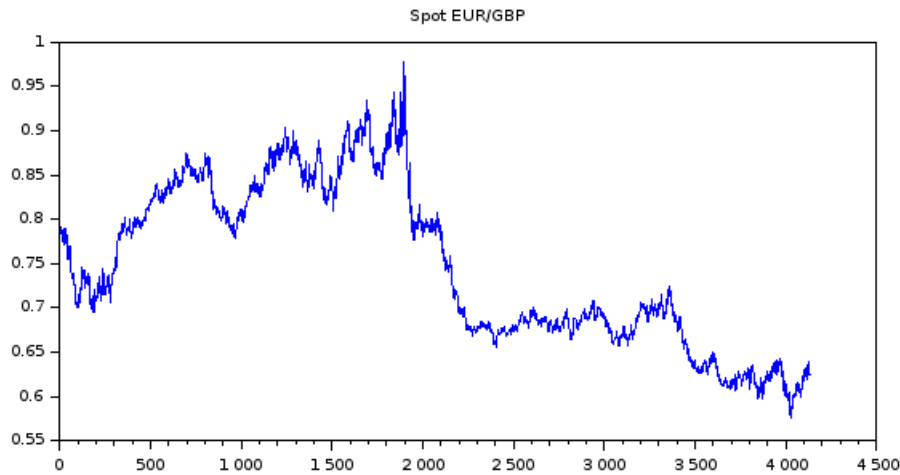
#### 5.0.5 Table

Cashflows			
Category	Debit	Credit	PnL

Other	16817	0	-16817
Funding	12415	0	-12415
Debt	12357	0	-12357
Food	9793	0	-9793
Bank	9616	0	-9616
Cash	8931	0	-8931
Cmb	6866	-963	-7829
Toxics	6857	0	-6857
Rent	3318	0	-3318
Telephone	1312	0	-1312
...	...	...	...
Total	92162	96890	4728

5.0.6 Graph

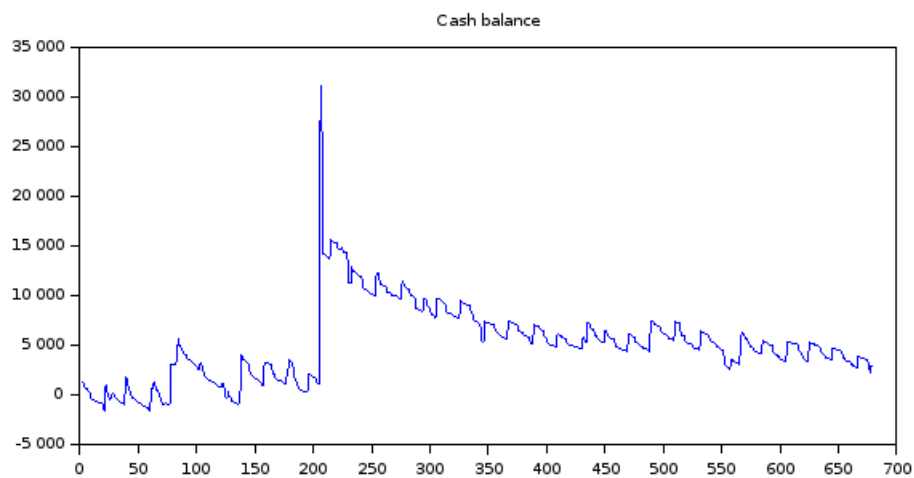
6 Currencies



is the graph of the EUR/GBP

This

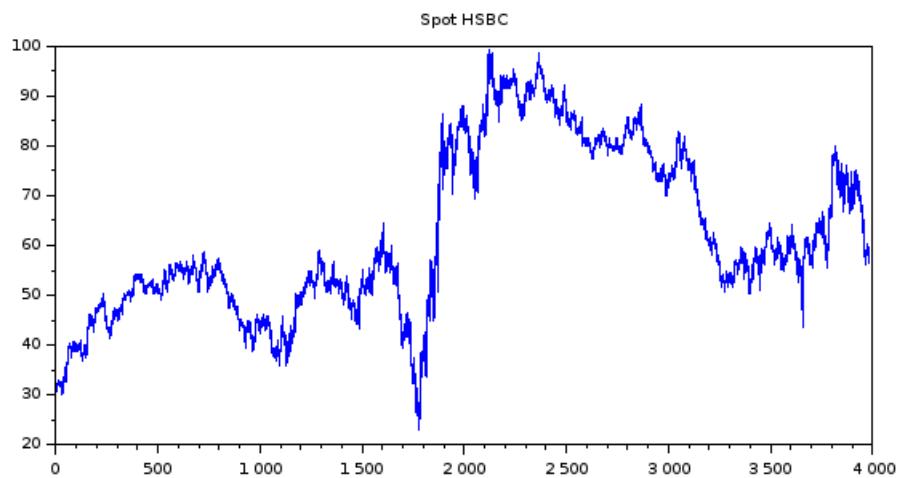
## 7 Cash balance



is the graph of my EUR cashbalance

This

## 8 Stocks



is the graph of HSBC stock

This

### 8.0.7 Table

Stocks table is available in the database ;-)  
`select * from stocks`

### 8.0.8 Graph

The graph is also available and produced by C++ under "legends"