Captor Index Methodology

February 15, 2017

1 Specifikation

1.1 Key

SEK/IRS/1Y/3M

1.2 Type

Price Kvoterat pris för instrument

Yield Yield to maturity för ränteinstrument

Total Return Total return som indexserie i instrumentets valuta Return

Daily Return Daglig avkastning

1.3 Arguments

Close Stängningspris såsom kvoterat, typ "Yield(Close)"

Mtm Marknadsvärdeförändring

Carry Carry för ränteinstrument

Roll Roll för ränteinstrument

Total Summa av komponenter

Dividend Utdelning

Egenskaper såsom land, valuta, bransch eller rating bör ju sparas på instrumentet.

Tänker mig att man bara sparar Carry som DailyReturn. När man behöver en tidsserie av den skapas det "on the fly" Som färdig tidsserie sparas t ex "SEK/IRS/1Y/3M,Return(Total)" för en swap att avända som benchmark.

2 STIB1D Index

$$IndexSTIB1D_t = 1 + IndexSTIB1D_{t-1} \frac{IndexSTIB1D_{ex-date} - date}{36000}$$

3 Interpol

3.1 STIB3M Index

$$ItrpolIndexSTIB3M_t = +IndexSTIB2M_t(IndexSTIB3M_t + IndexSTIB2M_t)\frac{IndexSTIB3M_{ex-date} - IndexSTIE}{IndexSTIB3M_{date} - IndexSTIB2}$$

3.2 SKSWX Currency

$$ItrpolCurncySKSW1_t = IndexSTIB3M_t +$$
$$+(CurncySKSW1_t - IndexSTIB3M_t)\frac{CurncySKSW1_{ex-date} - IndexSTIB3M_{date}}{CurncySKSW1_{date} - IndexSTIB3M_{date}}$$

For $1 < X \leq 20$:

$$ItrpolCurncySKSWX_t = CurncySKSW(X-1)_t +$$
$$+(CurncySKSWX_t - IndexSKSW(X-1)_t)\frac{CurncySKSWX_{ex-date} - CurncySKSW(X-1)_{date}}{CurncySKSWX_{date} - CurncySKSW(X-1)_{date}}$$

4 Index TR

4.1 STIB3M Index

$$TRIndexSTIB3M_t = \frac{1 + IndexSTIB3M_{t-1}\frac{IndexSTIB3M_{ex-date} - Spot_{ex-date}}{36000}}{1 + ItrpolSTIB3M_t\frac{IndexSTIB3M_{ex-date} - Spotdate}{36000}}$$

4.2 SKSWX Currency

For $1 \leq X \leq 20$:

$$TRCurncySKSWX = 1 + swapNPVDays\begin{pmatrix} Spot_{date}, \\ CurncySKSWX_{ex-date}, \\ CurncySKSWX_{t-1}/100, \\ ItrpolCurncySKSWX_t/100 \end{pmatrix} -$$
$$-swapNPVDays\begin{pmatrix} Spot_{ex-date}, \\ CurncySKSWX_{ex-date}, \\ CurncySKSWX_{t-1}/100, \\ CurncySKSWX_{t-1}/100 \end{pmatrix}$$

5 Index CA

5.1 STIB3M Index

$$CAIndexSTIB3M_t = \frac{1 + IndexSTIB3M_{t-1}\frac{IndexSTIB3M_{ex-date} - Spot_{date}}{36000}}{1 + STIB3M_t\frac{IndexSTIB3M_{ex-date} - Spotdate}{36000}}$$

5.2 SKSWX Currency

For $1 \leq X \leq 20$:

$$CACurncySKSWX = 1 + swapNPVDays\left(\begin{array}{c} Spot_{date}, \\ CurncySKSWX_{ex-date}, \\ CurncySKSWX_{t-1}/100, \\ CurncySKSWX_{t}/100 \end{array} \right) - \\ -swapNPVDays\left(\begin{array}{c} Spot_{ex-date}, \\ CurncySKSWX_{ex-date}, \\ CurncySKSWX_{t-1}/100, \\ CurncySKSWX_{t-1}/100 \end{array} \right)$$

6 Index RO

6.1 STIB3M Index

$$ROIndexSTIB3M_t = \frac{1 + IndexSTIB3M_{t-1}\frac{IndexSTIB3M_{ex-date} - Spot_{date}}{36000}}{1 + ItrpolSTIB3M_{t-1}\frac{IndexSTIB3M_{ex-date} - Spotdate}{36000}}$$

6.2 SKSWX Currency

For $1 \leq X \leq 20$:

$$ROCurncySKSWX = 1 + swapNPVDays\left(\begin{array}{c} Spot_{date}, \\ CurncySKSWX_{ex-date}, \\ CurncySKSWX_{t-1}/100, \\ ItrpolCurncySKSWX_{t-1}/100 \end{array} \right) - \\ -swapNPVDays\left(\begin{array}{c} Spot_{date}, \\ CurncySKSWX_{ex-date}, \\ CurncySKSWX_{t-1}/100, \\ CurncySKSWX_{t-1}/100 \end{array} \right)$$

7 Index MK

7.1 STIB3M Index

$$MKIndexSTIB3M_t = \frac{1 + ItrpolIndexSTIB3M_{t-1}\frac{IndexSTIB3M_{ex-date} - Spot_{date}}{36000}}{1 + ItrpolSTIB3M_t\frac{IndexSTIB3M_{ex-date} - Spotdate}{36000}}$$

7.2 SKSWX Currency

For $1 \leq X \leq 20$:

$$MKCurncySKSWX = 1 + swapNPVDays\left(\begin{array}{c} Spot_{date}, \\ CurncySKSWX_{ex-date}, \\ CurncySKSWX_{t-1}/100, \\ ItrpolCurncySKSWX_t/100 \end{array}\right) -$$

$$-swapNPVDays\left(\begin{array}{c} Spot_{date}, \\ CurncySKSWX_{ex-date}, \\ CurncySKSWX_{t-1}/100, \\ ItrpolCurncySKSWX_{t-1} \end{array}\right)$$

8 Index Check

8.1 STIB3M Index

$$CheckIndexSTIB3M_t = \frac{CAIndexSTIB3M_t \cdot ROIndexSTIB3M_t \cdot MKIndexSTIB3M_t}{TRIndexSTIB3M_t}$$

8.2 SKSWX Index

$$CheckIndexSKSWX_t = \frac{CAIndexSKSWX_t \cdot ROIndexSKSWX_t \cdot MKIndexSKSWX_t}{TRIndexSKSWX_t}$$