**POOL OWNERSHIP**

(Percent of CLIENT-TOT and MANAGER-TOT relative to POOL-TOT)

**BEG:** TheBeg-of-Day PoolOwnership is inclusive of that day’s Subscription and Cost-of-Subscription, both are entered to the ledger at the beginning of the day.

**END:** The End-of-Day PoolOwnership.

**BROKER ACCOUNTS (BAs)**

BROKER ACCOUNTS are CASH ACCOUNTS. They are the direct Account Value and Income data pulled from each broker/bank.

(Percent of POOL-BA relative to POOL-TOTAL)

ASSET TYPES

* CASH Non-interest bearing on-demand deposit, with low counterparty-risk.
* DEPOSIT Interest bearing on-demand deposit, with significant counterparty-risk.
* LOANS P2P, PERSONAL Personal loan portfolio via a Peer-to-Peer platform.
* LOANS P2P, REAL ESTATE Real estate backed loan portfolio via a Peer-to-Peer platform.
* LOANS P2P, SME Small and Medium Enterprise loan portfolio via a Peer-to-Peer platform.
* LOANS P2P, INVOICES Invoice Financing Notes via a Peer-to-Peer platform.
* LOANS P2P, OTHER Crypto-backed loans via a P2P platform.
* DERIVATIVES, OTHER Yield Harvesting Strategies via a Decentralized Application.
* LOANS DIRECT, X X = PERSONAL / REAL ESTATE/ OTHER ….
* PRIVATE EQUITY Private equity investment.
* PUBLIC SECURITIES Interactive Brokers account including ETFs, Futures, and Cash.
* FORWARDS Notional amount on over-the-counter forward contract.
* HELD CUSTODY, MANUAL Amounts held in custody such as short term loan from manager.

**Timing Differences**

TIMING DIFFERENCES is meant to account for timing differences in the crediting and debiting of cash or positions between brokers. For example, it sometimes happens that the receiving broker will only credit an incoming payment to the Fund’s account at a value-date which is one business day after the value-date at which the sending broker has debited that amount.

Timing Differences Accounts are like regular BA accounts, only they are filled-out manually with appropriate text as to why each entry was necessary.

**Held in Custody**

Held in Custody are deposits by new investors made before the subscription date, so are held in custody but not yet participate in the Fund’s ups and downs. Similarly, Redemptions held in custody not yet paid-out are accounted for here (clients withdrawal requests received and redeemed, i.e., the capital has stopped participating in the Fund’s ups and downs, but an outgoing payment hasn’t yet been made).

Held in Custosy Accounts are like regular BA accounts, only they are filled-out manually with appropriate text as to why each entry was necessary.

**Reclassification Accounts: reclassify CapGain to Income (and vice versa)**

Certain Commissions and Direct Costs (e.g., trading and bank commissions not classified as AdminCost)are picked-up by the BA-side-script as a Withdrawal, and are therefore classified as CapGain. But, they should be manually re-classified as an Expense.

Example: Blockchain TransactionFees paid to Miners for transfers out of Poloniex do not get captured by Poloniex reporting. They are simply deducted from the outgoing amount, wherein the receiving wallet receives the net amount. The TransactionFee is therefore capture as part of the Withdrawal and classifies as CapLoss, and should be manually reclassified as Expense.

Reclassification Accounts are like regular BA accounts, only they are filled-out manually with appropriate text as to why each entry was necessary.

**ACCRUAL ACCOUNTS (AAs)**

ACCRUAL ACCOUNTS are accounts to accrue for income (or expense) which is expected but not yet reflected in the (cash) Brokerage Accounts.

ACCRUAL can be either Income (e.g., Bonus Accrual) or CapGain (Profit Accrual on Equity Investment). Use Strings either

‘INCOME’ or ‘CAP.GAIN’

The AA is added (or subtracted) artificially to NAV since its crediting (or debiting) is not yet reflected in the Broker Accounts.

KEEP SEPARATE ACCRUAL ACCOUNTS:

* Bondora: BONUS ACCRUAL
* EstateGuru: BONUS ACCRUAL
* Poloniex: Hard Forked Bitcoin Gold Due
* CrowdEstate: Variable Interest Accrual for Real Estate Loans.
* BnktotheFuture:
  + Bitfinex Dividend
  + Bitfinex Shares Revaluation
* Lendy: Credit Loss Provisioning

(Percent of POOL-AA relative to POOL-TOTAL. Display-only, e.g., in POOL Balance Sheet)

**ACCRUAL** is allocated to each investor pro-rata by POOL OWNERSHIP.

(Percent of CLIENT-TOT and MANAGER-TOT relative to POOL-TOT)

**CAPITAL GAIN** (FX translation) is allocated to each investor pro-rata by AA-OWNERSHIP. Say the bonus is in EUR. The accrued, but not yet distributed, bonus fluctuates in value with EUR.USD rate. This FX translation should be allocated to the existing accrued-bonus owners, and not to any late investor.

(Percent of CLIENT-AA and MANAGER-AA relative to POOL-AA)

**CASH** realization hits the Broker Account so is allocated by POOL OWNERSHIP by default, so needs to be accompanied by a REVERSAL of the Accrued Balance, which correspondingly should be allocated by POOL OWNERSHIP.

**Make sure that the Cash Realization in the Broker Account is accounted for as CAPITAL GAIN, i.e., when parsing the BA transactions, capture the Cash Realization (of the Accrued Amount) as a DEPOSIT, and not as INCOME. E.g., if the Cash Realization is annotated in the Broker’s Downloadable Transactions History as Bonus, Other Payment, or Interest, then capture all of them in the DEPOSIT column of that BA.**

**REVERSAL** equals the Cash Realization in the BA and should therefore be allocated in the MAIN (dollar) LEDGER (of each series) by POOL OWNERSHIP. If 4000 were accrued and now are Cash Realized, then Late Investor will participate by default in the Cash Realization – but they should not - so REVERSAL should be allocated to their MAIN LEDGER by the same amount times the same POOL OWNERSHIP.

Since the Cash Realization is captured as a CAPITAL GAIN, then the corresponding REVERSAL entry in the AA needs also to NOT count towards INCOME in the Fund’s (and each Series’) Books.

**REVERSAL** should reduce the AA balance of each investor by AA OWNERSHIP. Late Investors have zero balance and should not have the reversal reduce their balance to negative, and similarly Existing Investors need the reversal to reduce their AA balance in full.

NOTICE REVERSAL therefore hits the *MAIN ledger* by POOL OWNERSHIP but hits the *AA ledger* by AA OWNERSHIP.

**WRITE-OFF** is the difference between the CASH realization and the AA BALANCE. It needs to be allocated to each investor pro-rata in accordance with the most recent (Beg-of-Day) OWNERSHIP of that INVESTOR in that ACCRUAL ACCOUNT. For example:

* When the BONUS is credited to the Brokerage account.
* When the TAX is paid out from the Fund’s bank account.
* When cash interest is paid.
* When principal is recovered.

Since the Accrual counted as INCOME, then the WRITE-OFF should also count as INCOME.

The result is that the income accrues and increases NAV at the time it economically arises. When it is realized as cash it does not affect NAV, since the cash credit is met with an exactly offsetting debiting reversal. And, if the cash credit is less than the Accrued Balance, then this results in a LOSS which reduces NAV and is allocated only to the investors who contributed (in the past) to the Accrued Balance, but not to investors that came after.

Example, AVI and OLIVER accrue a $5000 bonus in month 1. At the beginning of month 2 MATTHIAS subscribes, and at the end of month 2 $4000 are credited and $1000 are written off.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MAIN (dollar) LEDGER | | | |
|  | POOL | AVI | OLIVER | MATTHIAS (late) |
| BEG | 0 | 0 | 0 | 0 |
| ACCRUAL | +5000 | +2500 | +2500 | +0 |
| CASH in BA | +4000 | +1333 | +1333 | +1333 |
| REVERSAL in AA | -4000 | -1333 | -1333 | -1333 |
| WRITE-OFF | -1000 | -500 | -500 | -0 |
| END | +4000 | +2000 | +2000 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ACCRUAL ACCOUNT (AA) LEDGER | | | |
|  | POOL | AVI | OLIVER | MATTHIAS (late) |
| BEG | 0 | 0 | 0 | 0 |
| ACCRUAL | +5000 | +2500 | +2500 | +0 |
| CASH in BA | +0 | +0 | +0 | +0 |
| REVERSAL in AA | -4000 | -2000 | -2000 | -0 |
| WRITE-OFF | -1000 | -500 | -500 | -0 |
| END | 0 | 0 | 0 | 0 |

ASSET TYPES (AA)

* Income Accrual Income Accrual, whether Interest / Capital Gain / Dividend …
* Loss Provision Loss Provision, whether arising wrt debt / equity / …

**SUBSCRIPTION COSTS**

Subscription Costs (incoming wire cost, fund admin cost) are debited at BEG-of-DAY. They are debited separately from the subscription amount of the INVESTOR and of the POOL such that the BALANCE that serves as basis for ECONOMIC OWNERSHIP reflects the subscription cost both for the INVESTOR and the POOL.

The Subscriptions Costs are also debited in the Broker Account as a cash expense to the pool (either same day or a asynchronously), but this is not the point because this is captured just like any commission. Manually reducing the Client’s series with SubCost causes the sum of Series not-to-equal the Pool. Since SubCosts are debited separately and directly to the INVESTOR, then they need to be credited back to the POOL as income (because client claims this as deductible expense). Note that the actual commission captured in the BA is allocated to all series pro-rata, so the subscribing series bears it directly 100%, plus it bears it by pool ownership , and so when crediting back the SubCost, the subscribing investor needs to get back the . It’s fine to credit back the SubCost by adding it to aggregate BA income, which is allocated at Beg-Day.

**TO SUBSCRIBE**:

1. Enter Subscription Amount and Subscription Costs in appropriate column on the Subscription Date (e.g., 01-APR-2017).
2. If CASH was credited before the Subscription Date (e.g., 31-MAR-2017), then debit the Subscription Amount to SUBSCRIPTIONS held in CUSTODY not yet SUBSCRIBED on the date CASH was credited.
3. On the Subscription Date, credit back SUBSCRIPTIONS held in CUSTODY not yet SUBSCRIBED.

**SUBSCRIPTION in KIND**:

Value the subscription in USD. I.e., if these are share in CHF, and you sold them for CHF, then carry those CHF forward to the Subscription Date. This calculation sheet is in SUBSTANTIATION -> SUBSCRIPTIONS held in CUSTODY not yet SUBSCRIBED.

**REDEMPTION COSTS**

Redemption Costs (outgoing wire cost, fund admin cost) are debited at END-of-DAY (before the deduction of Fees). They are debited separately from the balance of INVESTOR.

The Redemption Costs are also debited in the Broker Account as a cash expense to the pool (either same day or a few days after). Since RedCosts are debited separately and directly to the INVESTOR, then they need to be credited back to the POOL as income, reversing the cash debit in the Broker Account.

**TO REDEEM**:

1. Enter Redemption Costs on the last day of the month (e.g., 30-JUN-2017).
2. Run engine to see Final Balance at the end of the month.
3. Enter the Final Balance as Redemption at the end of the last day of the month (e.g., 30-JUN-2017).
4. Enter the Final Balance as a Client Asset / Fund Liability (reducing POOL NAV) in Held in Custody.
5. **REDEMPTION AMOUNT == HELD CUSTODY exactly!**
6. When CASH is debited from Bank or Broker account then credit the amount back to REDEMPTIONS held in CUSTODY already REDEEMED.

**EXPENSE ACCOUNTS (EA)**

**COLLECTIVE ADMINISTRATION COSTS**

**These are PREPAID EXPENSE (BalanceSheet asset) accounts**

(Percent of POOL-EA relative to POOL-TOTAL)

* COMPANY REGISTRATION $450 BVIFSC
* FUND LICENSE $1000 BVIFSC
* REGISTERED AGENT $1100 ABM Group (Mark Dubois)
* AUTHORISED REPRESENTATIVE $750 Castlerock Authorised Representatives (Niall Brooks)
* FUND ADMIN (accountant) $0
* AUDITOR $4000
* CUSTODIAN $0
* PAYING AGENT $0
* SWISS REPRESENTATION $0
* LEGAL $0
* IT DEVELOPMENT $0

COMPANY REGISTRATION, FUND LICENSE, REG-AGENT, AUTH-REP are paid in advance (pre-payment) for one year, so they need to be capitalized and depreciated over the year.

IT DEVELOPMENT costs are capitalized and depreciated in a straight line over 1, 2, or 3 years, commensurate with their magnitude and useful life.

This module can also accommodate payments in arrears. For example, if I know that at year end I will for sure have to pay $4000 to cover that year’s audit costs, then I should accrue that costs as -$4000/12 per month and allocate it to investors every month that year leading up to the audit and actual payment.

The realization of the costs ARE PAID OUT OF THE POOL so their debit is already reflected in one of the POOL's BAs.

* **BA WITHDRAWAL / CAPITAL LOSS:** Must account for the Cash Debit (actual payment to ServicProvider) as WITHDRAWAL in the Broker Account, and as such, it will appear as a CAPITAL LOSS in the BA from which the payment was issued.
* **BEG:** carry over last END value (or assign 0 if first observation).
* **CAPITALIZATION:** credit as an asset the amount debited from the Broker Account. Note the expense capitalization offsets the Cash Withdrawal from the BA account, latter is classified as a capital-loss in the BA, so commensurately the former expense capitalization should not be added back to the INCOME for tax reporting purpose.
  + **POOL (main)**: sum the capitalizations across each EA.
  + **POOL (EA)**: credit in the ExcelSheet the same amount as the Cash Debit in the BA.
  + **MANAGER (main)**: allocate the POOL (main) credit by POOL-ownership.
  + **MANAGER (EA)**: allocate the POOL (EA) credit by EA-AllocKey.
  + **CLIENT (main)**: allocate the POOL (main) credit by POOL-ownership.
  + **CLIENT (EA)**: allocate the POOL (EA) credit by EA-AllocKey.
* **DEPRECIATION:**
  + **POOL (main)**: debit the sum of depreciation across EAs.
  + **POOL (EA)**: debit the depreciation for a given EA.
  + **MANAGER (main)**: allocate the POOL (main) debit by EA-AllocKey.
  + **MANAGER (EA)**: allocate the POOL (EA) debit by EA-AllocKey.
  + **CLIENT (main)**: allocate the POOL (main) debit by EA-AllocKey.
  + **CLIENT (EA)**: allocate the POOL (EA) debit by EA-AllocKey.
* **END:**
  + **POOL (main)**: take the sum of END values for all EAs.
  + **POOL (EA)**: take the END value for each EA.
  + **MANAGER (main)**: allocate the POOL (main) balance by EA-AllocKey.
  + **MANAGER (EA)**: allocate the POOL (EA) balance by EA-AllocKey.
  + **CLIENT (main)**: allocate the POOL (main) balance by EA-AllocKey (end-of-day).
  + **CLIENT (EA)**: allocate the POOL (EA) balance by EA-AllocKey (end-of-day).
* **EFFECT of SUB/RED** the EA balance changes due to subscriptions and redemption and is backed up as a PLUG-IN number.
  + **POOL (main)**: no change in the aggregate.
  + **POOL (EA)**: no change in the aggregate.
  + **MANAGER (main)**: diff between END and BEG+CAPITALIZ+DEPRECIATION (no change).
  + **MANAGER (EA)**: diff between END and BEG+CAPITALIZ+DEPRECIATION (no change).
  + **CLIENT (main)**: diff between END and BEG+CAPITALIZ+DEPRECIATION (no change).
  + **CLIENT (EA)**: diff between END and BEG+CAPITALIZ+DEPRECIATION (no change).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | MAIN (dollar) LEDGER | | | |
|  | POOL | MANAGER | OLIVER | MATTHIAS (late) |
| BEG | 0 | 0 | 0 | 0 |
| BA CASH DEBIT | -1000 | -500 | -500 | -0 |
| CAPITALIZATION | +1000 | +500 | +500 | +0 |
| DEPRECIATION | -100 | -0 | -100 | -0 |
| BAL | -100 | 0 | -100 | 0 |
| SUB by MATTHIAS | 0 | 0 | 0 | 0 |
| END | -100 | 0 | -100 | 0 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | EXPENSE ACCOUNT (EA) LEDGER | | | |
|  | POOL | MANAGER | OLIVER | MATTHIAS (late) |
| BEG | 0 | 0 | 0 | 0 |
| BA CASH DEBIT | -0 | -0 | -0 | -0 |
| CAPITALIZATION | +1000 | +0 | +1000 | +0 |
| DEPRECIATION | -100 | -0 | -100 | -0 |
| BAL | 900 | 0 | 900 | 0 |
| SUB  by MATTHIAS | 0 | 0-0 = -0 | 450-900 = -450 | 450-0 = +450 |
| END | 900 | 0 | 450 | 450 |

**COSTS SET-UP (20k)**

Setup costs WERE NOT TAKEN OUT OF THE POOL – they were paid out of pocket by the Investment Manager from his personal accounts.

Setup costs need to be TRANSFERRED from Clients to Manager.

* CREDIT setup costs to INVESTMENT MANAGER
* DEBIT setup costs from CLIENTS (adj ex.InvestmentManager) PRO-RATA.

**OTHER CALCULATIONS**