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PORTMAN Alternative Investments

How to get started

Vitec Aloc/HB Version 1.0 This document is based on the underlying system PORTMAN 7.20



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1. Background

The Alternative Investments module has been developed for clients to manage investments in e.g. Private Equity – an asset class that has been growing fast in recent years.

PORTMAN's module enables investors to track their investments in the fund, including reporting and registering various commitments, cash flows and key figures which are unique to this type of investment.

2. Getting started

The first task in the module is to set up some of the options to be used later in basic data and transactions.

2.1. Creation of fund types

Under 'Grouping' you can filter on PE, where it is possible to create groups.

Modules	Repo	orts	Transactions	GIPS	Mutualfu	nds	Se
🖬 📚		Fix	ed Reports				
		Fle	xible Reports				
nts		Gr	ouping				
nt no. * 0000005 0000012		GI ICE	CS codes 8 codes		igr)	Cint. 0000	. n 000

Here you can start by setting up any number of fund types via 'Add'. These fund types then come up as options under basic data creation for the individual fund.

0			Groupings	_ D X
Group	Main	Sub	Name	Colour Benchmark
type	group	grp.		category
PE	000	000	PRIVATE EQUITIES	
PE	001	000	FUND TYPES	
PE	001	001	Buy out	
PE	001	002	Fund-of-funds	
PE	001	003	Venture	
PE	001	004	Co-investments	
PE	001	005	Growth	
PE	001	006	Mezzanine	
PE	001	101	Loan funds	
PE	002	000	OUTFLOW CATEGORIES	
PE	002	001	Investment	
PE	002	002	Fees/Expenses	
PE	002	003	Fees/Expenses, ex. cap.acc.	
PE	002	004	Difference value Buy	
PE	002	005	Outflow 5	
PE	002	006	Outflow 6	
PE	002	007	Outflow 7	
PE	002	008	Outflow 8	3

2.2. Creation of outflow and inflow categories

It is possible to create a total of 15 outflow and 15 inflow categories with user-defined names, and to choose how the individual outflow/inflows should affect the different key figures.

Ø	Groupings (Change)		×
Group type:	PE PRIVATE EQUITIES	Multiples:	Yes 🗸
Main group:	002	Net IRR:	Yes 🗸
Sub-group:	004	Gross IRR:	Yes 🗸
Name:	Difference value Buy	NAV:	Yes 🗸
		Buy:	Yes 🗸
Help	Print	Cancel	ОК

These different outflows and inflows can be selected when registering a transaction.

2.3. Creation of regions/country areas

Similarly, regions/country areas can be set up by filtering on CR. These can also be selected in basic data by the same procedure.

Ø			Groupings	_ D X
Group- type	Main group	Sub grp.	Name	Colour Benchmark Acategory
CR	000	000	LANDEOMRÅDER	
CR	001	000	Global	
CR	002	000	US	
CR	003	000	Europe	
CR	004	000	Scandinavia	
CR	005	000	Denmark	
CR	010	000	Rest of the world	

2.4. Basic data

Private Equity investments have their own asset type in PORTMAN, and investments have to be registered in the system via Private Equity fund codes.

Basic data for Private Equity accessed via Modules -> Basic data etc. for securities -> Private Equity

The fund code is set up via the basic data window in Private Equity, which looks like this

Ø		Basi	c data -	Private equi	ty (Chang	ge)		×
ID code: Security name: Currency code: Listing country:	AA11111111 Blackrock IV DKK DKK	1		Basic data upo Expanded nam Report colour: Domestic curr	date: ; ency code:	ExcL security na	ame v	
Short name: At. ID code: Value days:	2			Listed, domes Unlisted:	tic:	v		
Basic data Gen Fund type: 1 Region: 1 Dates Vintage: Entry: Expected exit:	eral partners /enture Norden 01/01/2015 01/01/2015 01/01/2025	Co-investors	Comments Hur Car Mar Ope Fun Dat	de rate: ried interest: hagement fee: erating fee: d size: d share: e for share:	2 2 2 1,000	000 % 000 % 000 % 000 %		
Help	Print]					Cancel	OK

Here you can chose from the 'fund types' and 'regions' created earlier.

'Vintage' is the start-date of the fund, and 'Expected exit' is the expected date of closure of the fund. 'Entry' is the date when a client joined the fund. This date is used as the start-date in the IRR calculation.

Basic data also comprises some soft data (Hurdle rate, Carried interest, Management fee and Operating fee) not included in calculations.

If you want to state the proportion of the fund an investor owns on any given date, 'Fund share' can be entered under Modules -> Prices -> Key figures.

Fund share can also be used in the NAV calculation. (See below under dialogue box for NAV calculations).

The desired text can be entered on the 'General partners', 'Co-investors' and 'Comments' tabs.

3. Transaction types

There are three transaction types, which are described in more detail below.

3.1. Commitment

A commitment to a fund is the percentage the investor has subscribed to in the fund, which is then the maximum amount (or drawing right) available to the fund manager in the lifetime of the fund. A commitment can most logically be compared to the promise of a line of credit to the fund

Commitment transactions register the amounts made available by investors for investment in a PE fund. It is the commitment transaction that governs whether the PE fund is 'Holding list' and 'Period statement'.

The display in the 'Holdings' window has three columns:

- 1. Current position = Commitment
- 2. Remaining commitment
- 3. Market price = NAV

Holdings						
Pf.no ID code	* Security name	Current position	Remaining commitment	Market price	Market value ID code basic currency currency	K Asset
003 AA111111111	Blackrock IV	150,000,000.00	133,400,000.00	2,100,000.00	2,100,000.00 DKK	

3.1.1. Opening of fund

The first transaction which must always be created is the commitment transaction. This is the transaction that opens the investment and causes the fund to be displayed in the position window (Holdings).

The transaction indicates how much an investor has given by way of commitment to the fund. A commitment transaction has no effect on the account. The details of the account and depository for the fund are just an indication of the depository and account the fund belongs to.

<i>6</i>	Transaction registration		×
Transaction:	PC PE-Commitment	State:	Approved 🗸
Client:	0000000004 000000004 DKK	Inv. no.:	
Portfolio:	001	Org. inv.no.:	
ID code:	AXCELI00000 Axcel I DKK	User:	V
Internal trade: Closing:			
Trade date:	01/08/2017 Taxation date: 01/08/2017		
Value date:	01/08/2017 Value days: 0		
Commitment:	100.000.000,0 DKK		
Currency cross:	100,00 DKK/DKK		
Counterparty:	[none]		
Depository:	0000003023614405 Danske Bank		
Account:	0000003156887412 Danske Bank DKK		
Help	Print Basic data	Comment	QK

3.1.2. Closure of fund

A PE fund can be closed as follows:

- 1. Set NAV = 0
- 2. Run adjustments (Finanslink)
- 3. Reset commitment

An investment is closed when commitment = 0.

On the commitment transaction, the 'Closing' field should be checked. The transaction is created with a negative value for commitment, so it goes down to zero and the fund is closed. This transaction automatically resets remaining commitment on the fund too, and removes the display in the 'Holdings' window.

<i>6</i>	Transaction registration	×
Transaction:	PC PE-Commitment	State: Approved 🗸
Client:	0000000055 000000055 DHK	Inv. no.:
Portfolio:	001	Org. inv.no.:
ID code:	AXCELI00000 Axcel I DKK	User: _V
Internal trade:		
Closing:	✓	
Trade date:	02/08/2017 Taxation date: 02/08/2017	
Value date:	02/08/2017 Value days: 0	
Commitment:	-80.000.000,0 DKK	
Currency cross:	100,00 DKK/DKK	
Counterparty:	[none]	
Depository:	0000003023445697 Danske Bank	
Account:	0000003100268388 Danske Bank DKK	
Help	Print Basic data	Comment Cancel QK

3.2. Outflow

Outflow transactions register the amounts called off from the fund to cover purchase and administration costs etc. An outflow is therefore the cash flow that goes from the investor to the fund; i.e. payments to the fund viewed from the investor's perspective.

Ø		Transaction regis	tration	×
Transaction:	PO PE-Outflow		State:	Approved v
Client:	0000000013 DEMO DE	0K	Inv. no.:	
Portfolio:	003 003			124
ID code:	AA11111111 Bia	ckrock IV DKK	User:	V
Internal trade:				
Trade date:	13/04/2016 Taxatio	on date: 13/04/2016		
Value date:	15/04/2016 Value d	ays: 2	Multiple	
Category:	Capital calls	¥	Net 100	
PE-amount:	250,000.00 0	DKK 🗹 Buy	Gross IPP	
Commit. reduc.:	250,000.00	ркк		
Currency cross:	100.00	DKK/DKK		
Counterparty:	[none]	v		
Depository:	000000000078676	PE		
Account:	00000000656565 00	000000000656565 DKK		
Currency cross:	100.00 D	KK/DKK		
Amount:	-250,000.00 D	KK Effect on account: Norr	nal transaction	
Control:	-250,000.00			
Help	Print Basic	data	Comment C	ancel <u>OK</u>

Under Category, select one of the types set up earlier. Enter the amount of the payment (PE amount) and how much of it reduces the commitment. On the right we can see whether the transaction is to be included in the calculation of the individual key figures

FieldDescriptionTransactionFilled in by the system with transaction code 'PO' and name.

ID code	ID of fund. Must be a PE fund code.
Buy	Checkbox to show that this is a purchase.
	Field checked = purchase
	Blank field = a cost. Used in e.g. Finanslink.
	'Purchase' applies both to purchases in the fund and in a secondary market.
	By default, the field contains a checkmark which is removed if the user changes to transaction category.
PE amount	Amount in the fund currency to cover purchase costs or settle expenses. 'Purchase' applies both to purchases in the fund and in a secondary market.
	The value may be:
	Positive - Expanse to the fund and
	Negative – Expense to the fund and
	Negative = Repayment from the fund of amount collected earlier.
	The user must check the correct relationship between the original transaction and the reversal.
Commit. reduc.	Defaults to PE amount. This value may be overwritten by the user. If the amount is 0.00, remaining commitment is not affected by the transaction. If the field is filled in, it should have the same sign as PE amount.
	Costs/Purchases in the fund: The part of the paid in amount (PE amount) that will affect the commitment. The amount will not normally be greater than the PE amount.
	Durchass in accordery market.
	Pulcindse in secondary market.
	commitment The amount may be greater than the PE amount.
	Reversal:
	The part of the repaid amount (PE amount) from the fund that will affect the commitment. The amount cannot be greater than the PE amount.
	In a create process, the system tests whether the commitment is greater than or equal to remaining commitment. If this is not the case, a warning will be displayed to the user. Warning can be forced.
	The system also tests whether the absolute value of 'Commitment reduction' is greater than or equal to the absolute value of PE

	amount. If this is the case, a warning will be displayed to the user. Warning can be forced.
Category	'Outflow 1-15' may be selected. User-defined names can be set up under report group 'PE'.
Effect on	Option to specify which outflow transactions should be included in various PE calculations. There are the following options:
	Multiples: Checked to indicate that the transaction amount should be included
	IN CAICULATION OF KEY FIGURES, E.G. DPI, TVPI ETC.
	Net IRR:
	Checked to indicate that transaction amount should be included in calculation of 'Net internal rate of return'.
	Gross IRR:
	Checked to indicate that transaction amount should be included in calculation of 'Gross internal rate of return'.
	NAV:
	Checked to indicate that transaction amount should be included in calculation of various values, including 'Net asset value' (NAV), book values etc.
	Whether the fields are checked and locked for editing is governed by the setup under report group 'PE'.

3.3. Inflow

Inflow transactions register the amounts paid out from the fund to investors. An inflow is the cash flow that goes to the investor from the fund, i.e. payments from the fund viewed from the investor's perspective.

<i>6</i>	Transaction registration		×
Transaction:	PI PE-Inflow	State:	Approved 🗸
Client:	0000000013 DEMO DKK	Inv. no.:	
Portfolio:	003 003		
ID code:	AA111111111 Blackrock IV DKK	User:	_V
Internal trade:			
Trade date:	13/04/2016 Taxation date: 13/04/2016	Fillent on	
Value date:	15/04/2016 Value days: 2	Multiple	
Category:	Distribution	V Net 199	
PE-amount:	1,500,000.00 DKK Sale	Gross IPP	
Recall amount:	600,000.00 DKK Reversal: [None]		
Recall date:	22/05/2017		
Tax amount:	100,000.00 DKK		
Exp.tax refund:	50,000.00 DHX		
Currency cross:	100.00 DKK/DKK		
Counterparty:	[none]		
Depository:	000000000078676 PE		
Account:	000000000656565 00000000656565 DKK		
Currency cross:	100.00 DKK/DKK		
Amount:	1,400,000.00 DKK Effect on account: Normal transac	tion 🗸	
Control:	1,400,000.00		
Heb	Brint Basic data	Comment Cance	L QK

Field	Description
Transaction	Filled in by the system with transaction code 'PI' and name.
ID code	ID of fund. Must be a PE fund code.
Sale	Checkbox to show that this is a sale. Field checked = a sale
	Blank field = a payment from the fund. Used in Finanslink
	If 'Sale' is checked, the fields
	'Recall amount'
	'Recall date'
	'Tax amount'
	'Exp. 'Tax refund'
	are set to zero and locked for data entry. The 'Reversal' field is also set to 'None'.
	Field defaults to blanks.
PE amount	The amount paid from the fund or from a sale in a secondary market. This is the amount that affects the account. This is a gross amount, and any tax has not been deducted.
	It is possible to pay dividends back to the fund. Under 'Reversal', select 'Distribution' and enter a negative amount in 'PE amount'. The system itself will place a minus in front of the amount if the user does not.

Reversal	Drop-down list to indicate whether inflow transactions are to be used for payments/sales for funds, reversal of dividends that have been reserved (recall amount), repayment of tax already paid or repayment of dividends paid earlier. The drop-down list may contain the following values:
	Recall. amount (reversal of reserved • amount)
	 Tax (reversal of tax paid) Distribution (reversal of dividend)
	The word 'Reversal' is displayed in red if a value other than 'None' has been selected.
Recall amount	Only relevant for payments from the fund or reversal of reserved dividend (commitment).
	Payment from the fund: The part of the amount paid out that is recallable (reserved) and increases the commitment. The amount cannot be greater than the PE amount. If the amount is zero (0.00) there can be no recall of the dividend paid.
	Reversal – recallable amount If 'Recall. amount' has been selected in 'Reversal' a reserved amount to be reversed may be entered. This will be shown as a negative amount in the browser window under 'Nominal'. The amount affects remaining commitment but has no effect on the account.
	In all other situations the field is set to 0.0 (zero), and locked for editing.
Recall. date	Indicates the date after which the amount can no longer be recalled. This is just an information field. There is no check to confirm that the amount is actually released on this date.
	'Recall. amount' must be entered, but not for reversal of reserved amount. In this case the field is set to zero and locked for data entry.
Tax amount/ Actual refund.	Only relevant for payments from the fund and repayment of tax. The screen text is determined by the selection under 'Reversal'.
	Payment from the fund (Tax amount) The part of the paid-in amount (PE amount) that is taxable and has been withheld. The amount cannot be greater than the PE amount. If the amount is 0.00, none of the transaction amount is taxable.

	Reversal – tax refund (Actual refund) If 'Tax refund' has been selected in 'Reversal' a tax amount to be reversed may be entered. The amount has no effect on the account. In all other situations the field is set to 0.0 (zero), and locked for editing.
Exp. tax refund/	The screen text is determined by the selection under 'Reversal'.
Non-refunded	Payment from the fund (Exp. tax refund):
	Expected repayment of tax. This is an information field.
	Reversal – tax refund (Non-refunded):
	Any residual amount not refunded as expected.
Category	Inflows 1-15 may be selected May be renamed - set up under 'report group PE (inflow)'.
Effect on	Option to specify which inflow transactions should be included in various PE calculations.
	Multiples:
	Checked to indicate that payments should be included in the calculation of key figures, e.g. DPI, TVPI etc.
	Net IRR:
	Checked to indicate that transaction amount should be included in the calculation of 'Net internal rate of return'.
	Gross IRR:
	Checked to indicate that transaction amount should be included in the calculation of 'Gross internal rate of return'.
	NAV:
	Checked to indicate that transaction amount should be included in the calculation of various values, including 'Net asset value' (NAV), book values etc
	Whether the fields are checked and locked for editing is governed by the setup under report group 'PE'.
Amount	PE amount minus tax withheld.

4. Overview window

'PE Overview' gives the user a quick summary of PE fund transactions, key figures etc. on a selected date. The 'Private equity overview' window can be called by right-clicking in the following browser windows:

- Basic data for private equity
- List of holdings/Holding overview
- List of transactions

Ø.							Private	equity	- overvie	W.		- 0
Fund: Client: Portfolio:	8CP 000	PV1000000 0000055	Blacksto	vie TEST 1055								Distributions of outflows
Calc. date: 0	1/01	1/2014										
Age	TH	ne to exit	NJ	V Rest co	nnitnent 1	lotal outflows	Total inf	lows				1.350.745
year(s)		Year(5)	US	D	USD	USD		USD				
3,51		6,50	16.154.89	19 43	5.839.434	-17.112.277	1.759	.166				14.013.901 709.576
IRR gross %		IRR net N	DPI	TVPI	RVPI							- 238.055
13,61647		4,13445	0,10280	1,04685	0,94405							
Trade date	Tr.	PE		PE-amount	t Connitner	t Recal-amount		01	ect on		-	A faar Tanansa ay c
		Category			impac	t	Multiple	Net IRR	Gross IRR	NAV		Feel/Expenses Difference value Buy
01/09/2013	PI	Distributio	in in	4.754	()	0 0	Yes	Yes	Yes	Yes		
06/09/2013	PO	Fees/Expe	nses-	-83.346	-83.34	6 0	Yes	Yes	No	No		
06/09/2013	PO	Investmen	ŧ.	-562.512	-562.51	2 0	Yes	Yes	Yes	Yes		Distributions of inflows
03/10/2013	Pt	Distributio	in .	730.956	5	0 397.459	Yes	Yes	Yes	Yes	L.	Distributions of millions
21/10/2013	PO	Investmen	t	-186.250	-186.25	0 0	Yes	Yes	Yes	Yes		920.028
28/10/2013	PO	Fees/Expe	nses, ex.	-167.096	5	0 0	Yes	Yes	No	No		
25/11/2013	PO	Investment	4	-833.617	-833.61	7 0	Yes	Yes	Yes	Yes		
20/12/2013	PO	Investmen	t.	-4.935	4.93	5 0	Yes	Yes	Yes	Yes		
20/12/2013	PI	Distributio	10	320.094		0 99.756	Yes	Yes	Yes	Yes		
02/01/2014	PI.	Distributio	n .	35.201	1	0 6.944	Yes	Yes	Yes	Yes		5,170
06/01/2014	PO	Investmen	ŧ	-2.408.491	-2.408.49	1 0	Yes	Yes	Yes	Yes		
03/02/2014	PO	Fees/Expe	nses, ex.	-158.021	0	0 0	Yes	Yes	No	No		
07/02/2014	PO	Fees/Expe	nses	-95.121	-95.12	1 0	Yes	Yes	No	No		
07/02/2014	PO	Investmen	t	-2.091,694	-2.091.69	4 0	Yes	Yes	Yes	Yes		~ 797.908
07/02/2014	PI	Distributio	NO.	1.770		0 0	Yes	Yes	Yes	Yes		🐑 Divident 🛛 😜 Paid tax 🔹 🚯 Recallable
											- V	

The top section in the window shows the client and portfolio that the selected PE investment falls under. The middle section contains two rows with relevant key figures and graphical elements. The top row of key figures are calculated as at 'Calc date'. The bottom row of key figures are all calculated from the start (Entry date) up to and including 'Calc date'.

'Calc date' defaults to today's date, and calculations are based on this date. If 'Calc date' is changed, the key figures are recalculated and the graphic updated.

If there is a close transaction ('PC'), the listing date on this is compared with today's date. If the close date is before today's date, the overview window starts up with the close date as 'Calc date', and data in the window will be calculated from the close date.

If there is a close date and the user changes 'Calc date', this will be handled as follows:

Calc date before close date:

Key figures in the window, and 'Age', are calculated from the specified date. 'Time to exit' is calculated from the close date.

Calc date after close date:

Key figures in the window, and 'Age' and 'Time to exit', are calculated from the close date.

Key figures	Description
Age year(s)	The age of the fund in years counting from the 'Vintage date' given in basic date to 'Calc date'.
Time to exit	Number of years to exit counting from 'Calc date' to 'Exit date' given in basic data.
NAV	Adjusted NAV at 'Calc date'.
Remaining commitment	Remaining commitment at 'Calc date'.
Total outflow	Sum of all outflows from start until 'Calc date'.
Total inflow	Sum of all inflows from start until 'Calc date'.
IRR Gross	Internal rate of return calculated from the transactions marked to show that they are to be included in IRR Gross . See <u>Calculations for private equity (Description)</u> * Expressed as a percentage (%).
IRR Net	Internal rate of return calculated from the transactions marked to show that they are to be included in IRR Net . See <u>Calculations for private equity (Description)</u> * Expressed as a percentage (%).
DPI	Distributed to paid in: See <u>Calculations for private equity</u> (Description)*
TVPI	Total value to paid in: See <u>Calculations for private equity</u> (Description)*
RVPI	Residual value to paid in. See <u>Calculations for private equity</u> (Description)*

*) see online help and point 11

The bottom section shows the transactions that have been created in the fund. The transactions that are not included in the calculation because of the selected 'Calc date' are greyed out. The system filters on trade date.

Three of the columns are described in more detail below:

Column	Description
PE amount	Shows PE amount with sign for PO and PI transactions.
Commitment impact	Shows the amount by which PC and PO transactions alter commitment.

Recall. amount

Shows the amount by which PI transactions alter commitment. These are transactions where all or part of the dividend is recallable or a recallable amount is being released again.

For each transaction, the overview window shows which key figures the transaction is included in. Double-clicking on any given transaction brings it up in the change/show dialogue, depending on the system configuration.

On the right of the overview window is a graphical display of the underlying breakdown of inflows and outflows. Note that it is possible to view the percentages and names for the individual categories by holding the mouse pointer over the relevant slice on the chart. The chart can be rotated with the mouse, and you can single-click on the individual category slices to drag them out of the chart and make them more visible.



5. Calculation of NAV

The NAV calculation can be called by right-clicking in the Private Equity basic data window.

Private Equity funds often report NAV with a few months' delay, which makes it hard to determine the current value of the fund and also complicates things when NAV is to be entered into PORTMAN. To avoid having to reopen closed months, the window allows you to calculate an adjusted NAV for a selected registration date (PORTMAN price date) and then record this in PORTMAN's price database.

The latest NAV returned will be adjusted for the inflow and outflow transactions that are marked to show that they are to affect NAV and which fall into the period from (but not including) the date of the NAV supplied, up to and including the selected registration date. The system filters on trade date.

The NAV calculation can also handle the situation where the NAV value from the fund is negative.

%		P	rivate equit	ty - NAV value		- 0 🛋
Private equity fun	d:	AA111111111	Blackrock I	V		
Price set:		Default		~		
Fund reporting da	te:	01/10/2015	NAV (share): 🗸 25,000,0	00.00	
PORTMAN price da	te:	13/04/2016	NAV (calcula	ated): 19,300,0	00.00	
Trade date	Tr.	PE		PE-amount	Date	NAV/
		Category				price
01/12/2015	PI	Distribution		2,500,000	16/03/2016	18,000,000.00
02/02/2016	PI	Distribution fr	a salg af virks	3,500,000	31/03/2016	2,100,000.00
25/03/2016	PO	Capital calls		-100,000		
29/03/2016	PO	Capital calls		-200,000		
				5,700,000.00		
	-					
Help	P	rint			Save NAV (Calculate NAV <u>C</u> lose

Calculation of NAV:

NAV last returned (Fund reporting date)

- + Subsequent outflows
- Subsequent inflows
- = Calculated NAV

The NAV calculation can cope with NAV supplied from the fund as a specific investor's NAV or as the total NAV for the fund. In the latter case, 'Fund share' is used; this is the investor's percentage share of the total fund.

NAV (share)/ NAV (total)	Via the drop-down list the user can choose whether the NAV supplied is a NAV for the client's share of the fund, 'NAV (share)' or the NAV for the whole fund, 'NAV (total)'.
NAV (calculated)	Calculated adjusted NAV. Based on the NAV returned, adjusted for the outflow and inflow transactions marked to show that they are to affect 'NAV' which fall into the adjustment period.
NAV (share).	Field only displayed if 'NAV (total)' selected for the NAV returned. This shows the client's share of the fund calculated from 'NAV (total)' and 'Fund share'.
Fund share	Client's share of the fund. Read from the key figures database as the latest key figure (PE fund share) on or before the 'Fund reporting date'.

6. X-ray – view of underlying investments

PORTMAN's X-ray module can be used to break figures down into the underlying companies. Investors themselves have to produce the necessary data for the breakdown. This data can be entered or imported.

X-ray can be accessed via RMB on the fund:



The investments can be entered manually or imported from the fund. In this way, the user can gain an overview of the underlying investments in the individual fund.

8		X-ray (Change)	
ID code: Validity date: Advanced options: Type of graph;	8CPV1000000 Blackstone T 011011/20171 v :	ËST	- Share, 50%
ID code	Name	Share % Asset type	
AU0000008HP BMG34804107 XS129748168 ZAG00002473	Schusberger BHP Billion LTD First Pacific 8,375 STANLN 24 7,255th.Africa20	20.0000 Share 20.0000 Share 10,0000 Share 15,0000 Sond 35,0000 Sond	
			Bond, SOVa
Count: 5	Sum	100,0000	

7. Flexible reports

A number of columns and grouping options have been set up for use in the flexible reports 'List of Holdings', 'Transaction list' and 'Period statement'.

Note that some of these columns are also included in the Daily Calculations module

7.1. List of holdings

efinition name:		test	Print type:	L	andscape	 Only Excel: 	Default asset grouping	e: E
olumn types:	Ì	[4] ~	Sorting:	10	Code	~		
Possible colu	mns				-Selected co	blumns		
Column no.	Length	-> Name		^	Column no.	Name	Lengt	th
304	5	INT, S.GRP			371	VINTAGE	1	0
213	6	INV. MNGR.			370	REGION	1	5
172	7	INV.LIM PCT.			369	FUND TYPE	1	5
157	12	ISIN ID CODE			372	100 00005		
387	12	ISIN KODE ADD. INFO			272	IDD NET		,
174	40	ISSUER			3/3			,
299	30	ISSUER ORG. NAME			366	REST COMMITMENT (BAS)	1	6
298	15	ISSUER ORG, NO.			365	REST COMMITMENT (LOK)	1	6
300	15	ISSUER ORG. SHORT NAME			368	TVPI	8	1
364	12	KONTRAKTNR VAL. TERM			367	DPI	8	\$
197	12	KRONE RISK INT.DCR, 1.0%		~	385	RVPI	1	\$
197 Report	12	KRONE RISK INT.DCR,1.0%		¥	385	RVPI	1	3

7.1.1. Suggestion for report

Data can be grouped by fund type or issuer org., for example, and a report produced with the following columns, where Market value = NAV

Column no.	Name	Length
7	SECURITY NAME	30
371	VINTAGE	10
366	REST COMMITMENT (BAS)	16
365	REST COMMITMENT (LOK)	16
367	DPI	8
368	TVPI	8
385	RVPI	8
372	IRR GROSS	8
373	IRR NET	8
21	MARKET VALUE.	16

7.2. Transaction list

The transaction list can be used to provide an overview of the individual effects on the key figures.

	~	
Selected	columns	
Column n	o. Name	Length
86	ALTERNATIVE ID CODE	11
19	SECURITY NAME	30
23	INVOICE AMOUNT IN(BAS)	16
179	P.E. CATEGORY	20
180	EFFECT ON MULTIPLE	9
181	EFFECT ON NET IRR	9
182	EFFECT ON GROSS IRR	9
183	EFFECT ON NAV	9

7.3. Period statement

The period statement contains columns for 15 inflows + total and 15 outflows + total. TWR calculations also include PE investments, so a TWR yield can be calculated too.

D	Code	✓ Shares in front: □		
a i	Selected co	lumns		_
	Column no.	Name	Length	^
	448	PE INFLOW 2 I PER. BAS	12	
	449	PE INFLOW 3 I PER. BAS	12	
	447	PE INFLOW 1 I PER. BAS	12	
	446	PE OUTFLOW 5 I PER. BAS	12	
	465	PE OUTFLOW 6 I PER. BAS	12	=
	474	PE OUTFLOW 15 I PER. BAS	13	1
	477	PE INFLOW 8 I PER. BAS	12	
	478	PE INFLOW 9 I PER. BAS	12	
	485	PE TOTAL OUTFLOW I PERIODEN (BAS)	16	
	486	PE TOTAL INFLOW I PERIODEN (BAS)	16	~

7.3.1. Report with statement of yield

A suggested period statement report is shown below, with a number of columns showing components used to determine the yield and a breakdown of these into a price part and an exchange rate part.

Column no.	Name	Length	4
4	ID CODE	11	
5	SECURITY NAME	30	
426	HJ VA	3	
395	IRR %	8	=
400	IRR % (DOM)	8	
336	TWR EXP(BAS)	8	
337	TWR EXP(DOM)	8	H
20	VAE.O	16	
485	PE TOTAL OUTFLOW I PERIODEN (BAS)	16	
486	PE T I PER	16	1

11	MARKET VALUE B.O.P.	16	
51	YIELD A.M.V.	14	
39	UNREAL. P/L PRICE, A.M.V.	14	
45	UNREAL.P/L EXC RATE, A.M.V.	14	~

7.3.2. Overview report of outstandings on dividends and tax

The period statement includes a number of columns to show outstandings related to dividends, tax and refunds of these.

Selected co	olumns	
Column no.	Name	Length
4	ID CODE	11
5	SECURITY NAME	30
181	REFUND DIVIDEND TAX	12
221	EXPECT.REFND DIV.TAX BAS.	12
222	EXPECT.REFND DIV.TAX DOM.	12
223	REFUND DIV.TAX DOM.	12
224	REFUND CORRECT.BAS	12
225	REFUND CORRECT.DOM	12
226	OUTSTANDING DIV.TAX. BAS	12

8. Year-end and Finanslink

Private Equity is included in PORTMAN's Year-end and Finanslink modules. Adjustments may be made for a year or period. Annual adjustments can be run on any date and will each appear as one figure, as it is not possible to split them into a price and an exchange rate element.

To support the integration with Finanslink, a large number of new entry types (810-845) have been set up.

9. Help to import transaction

Clients in PORTMAN's Alternative Investments module have typically invested in private equity before buying the module. The historical processing may have taken place in PORTMAN or in another system. The Alternative Investments module is supplied without any data. That means it is the client's job to get the historical transactions entered into PORTMAN.

Vitec therefore provides an Excel spreadsheet to help with the task of entering historical transactions into PORTMAN.

The Excel sheet is used to import transactions. The specific fields should therefore be populated in the spreadsheet, so the transactions can be imported into PORTMAN. The data dump to from the Excel sheet is placed on the named path in the spreadsheet and then has to be moved to the folder from which the transactions are read in the import.

There are three types of transaction: Commitment, Inflow and Outflow.

The practice is described in more detail in a separate guide, which can be requested from Vitec.

10. Online help

A number of new help texts have been set up for the module in PORTMAN Online Help.

11. Calculation principles

The calculation of private equity key figures and overall calculations are described below.

Calculation of NAV:

NAV_{last returned} + Outflows - Inflows

= NAV

Outflows and inflows are since latest NAV returned and are marked to show that they are to affect 'NAV'.

Market value (no accr. interest)

Calculated as latest NAV in relation to settlement date adjusted for outflow and inflow transactions marked to show that they are to be included in the calculation of NAV.

Market value

Equal to market value.

Start adjusted value

Equal to market value on the opening date.

Book value

Calculated as latest book value in relation to settlement date adjusted for subsequent outflow and inflow transactions marked to show that they are to affect NAV.

Cost price

Not calculated.

Value	Description
Commitment	Sum of commitment transactions since the start.
Remaining	Remaining commitment since the start, calculated as:
commitment	Commitments – outflows marked to show that they affect rest. commitment + Recallable inflows.
	Commitment covers all adjustments up and down (PC transactions).
Paid-in capital	The amount paid into the fund since the start, calculated as:

	Sum of outflow transactions marked to show that they are to affect 'Multiple'.
	Always calculated from start-up.
DPI multiple	Distributed to paid in: Inflows/Paid-in capital Inflow transactions (PE amount) marked to show that they are to affect 'Multiple' are included in the calculation. Always calculated from start-up.
TVPI multiple	 Total value to paid in: (NAV + inflows)/Paid-in capital Note that purchases and sales are also included in the calculation. Always calculated from start-up. NAV last adjusted as of date Inflows since latest NAV, where the transactions are marked to show that they are to affect 'NAV'. PIC since the start
RVPI multiple	Residual value to paid-in NAV/Paid-in capital Calculation as from Start • NAV last adjusted as of Date • PIC is since the start May also be calculated as: RVPI = TVPI - DPI
PIC multiple	Paid-in capital/Commitment Calculation as from start-up
ACC IRR Net/Gross	The transaction section states that it must be possible to specify whether the transaction is to be included net or gross in the IRR calculation. Transactions marked 'net' will be included in the Net IRR calculation. Transactions marked 'gross' will be included in the Gross IRR calculation. Calculation as from start-up
Gain/loss	Profit/loss: 'Start adjusted' NAV (end) – Outflows + inflows – NAV (start). Inflows/outflows should be marked to show that they affect 'NAV'. Book value BV (end) – Outflows + inflows – BV (start). BV bases both on the latest adjustment.

Calculation of IRR:

- Internal interest is calculated from the start to the specified date. 'Entry date' from the basic data for the fund is used as the start date.
- A cash flow is calculated consisting of the outflow and inflow transactions (PO/PI) which fall into the period and are marked to show that they are to be included in the IRR calculation. The adjusted NAV as at the 'to-date' is also included.
- The internal interest is the rate which gives a value of 0 (zero) when used to discount future cash flows